GLOBAL DATA ALLIANCE
TRUST ACROSS BORDERS

June 7, 2021

National Telecommunications and Information Administration
Office of International Affairs
US Department of Commerce
1401 Constitution Avenue NW, Room 4701
Washington, DC 20230

Attn: Ms. Diane Steinour / Submitted by email at: WTDC21@ntia.gov

Response to NTIA Solicitation of Comments – *"Connecting the Unconnected Worldwide in Light of the ITU's WTDC-21"*

Docket No. 210503–0097

Dear Ms. Steinour,

We thank the National Telecommunications and Information Administration (NTIA) for the opportunity to submit comments in response to NTIA's solicitation of comments in the Federal Register, *Connecting the Unconnected Worldwide in Light of the ITU's WTDC-21*.[1]

The Global Data Alliance (GDA)[2] supports the ITU's focus at the 2021 World Telecommunication Development Conference (WTDC) on the theme, "*Connecting the Unconnected to Achieve Sustainable Development*."[3] The GDA is also interested in the ITU's focus at WTDC-21 on "6 enablers" (partnerships, inclusion, financing, leadership, innovation, and youth), which is intended to accelerate connectivity for sustainable development and which will make up the core thematic content of the "Road to Addis" series.

As outlined in GDA's primer, *Cross-border Data Transfers & Economic Development: Access to Global Markets, Innovation, Finance, Food, and Healthcare*,[4] cross-border data transfers and digital connectivity are helping build momentum towards collective global efforts to meet UN SDGs by 2030. Data transfers and connectivity play an important role in ending poverty and hunger, ensuring health and education, promoting sustainable growth and protecting the environment, among other SDGs. These goals depend, in part, upon ensuring cross-border access to technology, knowledge, and data; safeguarding the ability to transfer data seamlessly and responsibly across borders; and building digital connectivity and inclusiveness through computer literacy, access to the Internet, and the availability of ICT equipment.[5]

More specifically, cross-border access to data, which may embody knowledge, technological tools, and new business opportunities, are important to enhancing living standards and promoting sustainable development. The ability to access technologies and transfer data across borders is critical to (1) helping micro-, small-, and medium-sized enterprises (MSMEs) and other enterprises access overseas markets and supply chains; (2) improving innovation and competitiveness; (3) building access to finance; (4) growing agricultural sustainability and productivity; and (5) improving population health and well-being. Extending these benefits across populations depends, in part, upon ensuring cross-border access to technology, knowledge, and data; safeguarding the ability to transfer data seamlessly and responsibly across borders; and building digital connectivity and inclusiveness through computer literacy, access to the internet, and the availability of information technology (IT) equipment.[6]

We include below two appendices. Appendix I discusses the importance of connectivity and cross-border data transfers to the UN Sustainable Development Goals. Appendix II discusses the impact of data localization and cross-border data transfer restriction on a range of economic development and policy goals.

We look forward to any questions or comments that you may have.

Appendix I

Digital Connectivity and Cross-border Data Transfers and the UN Sustainable Development Goals

Cross-border data transfers and connectivity can help address development-related challenges outlined in the UN Sustainable Development Goals, as outlined below.

- **SDGs 1, 8 and 10: End poverty in all its forms everywhere (SDG 1); Promote sustained, inclusive, and sustainable economic growth, full and productive employment and decent work for all (SDG 8); Reduce inequality within and among countries (SDG 10)**
    - Cross-border data transfers and digital connectivity can help reduce poverty, facilitate economic growth, and reduce inequality by: (1) spreading economic opportunities wherever digital networks can reach; (2) growing the ability of developing country farmers, entrepreneurs and MSMEs to participate in international commerce; and (3) extending the reach of development assistance agencies to remote and isolated regions.[7]

- **SDG 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture.**
    - Cross-border data transfers and digital connectivity can help promote sustainable agriculture, nutrition, and food security. Farmers are better positioned for success in planting, harvesting, and selling their agricultural products when they have (1) cross-border access to satellite and sensor-driven data that helps inform planting and harvesting decision-making; (2) access to information on sustainable crop development and protection techniques, weather and soil data; and (3) access to reliable cross-border data on sales opportunities and prospective purchasers. Cross-border data transfers also enable optimization of supply chains to ensure that food is distributed in a timely and efficient manner where it is needed most. Furthermore, by enabling small-scale farmers to connect directly to purchasers in export markets, cross-border access to technologies reduce opportunities for arbitrage, allowing farmers to retain more profits.[8]

- **SDG 3: Ensure healthy lives and promote well-being for all at all ages.**
    - Cross-border data transfers and digital connectivity help ensure healthy lives and well-being for all. They improve online healthcare education, patient diagnoses and treatments, pandemic response, and humanitarian medical assistance in many ways. These include, for example, the gathering and analysis of cross-border and cross-organization datasets that help define patterns and support medical research.[9]

- **SDG 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all**
    - With increasing dependence on remote learning due to the COVID-19 pandemic, the importance of cross-border data transfers and digital connectivity to inclusive and quality education is more apparent than ever. Cross-border access to remote learning platforms, online textbooks and study materials, and to scientific databases and laboratory resources is important in providing all countries, including developing countries, access to knowledge and participate in remote learning.

- **SDG 5: Achieve Gender Equality and Empower All Women and Girls**
    - Gender divides persist in many economies.[10] Improved connectivity and cross-border access to financial, health, educational, and occupational opportunities can help close those divides.[11] This means remediating the divide in access to mobile and other ICT equipment and in cross-border access to online tools. Such access can help transcend gender barriers at home by connecting individuals to enabling resources and knowledge.

Cross-border data transfers and digital connectivity can help achieve SDG benchmarks in all of the areas above, reducing poverty and inequality, promoting sustainable and inclusive growth, and creating new economic opportunities.[12]

Appendix II

Impact of Data Localization and Data Transfer Restrictions on Economic and Policy Goals

- **Impact on Effective Global Connectivity:** Global connectivity relies on real time data transfers for network performance, resilience and resolution of fault occurrences across geographic regions. This integrated monitoring and diagnostic approach is more cost efficient, consistent and secure than a process fragmented by restrictions on data flows. Data localization mandates could undermine global connectivity.

- **Impact on Economic Development**: The World Bank's 2020 *World Development Report* found that, "restrictions on data flows have large negative consequences on the productivity of local companies using digital technologies... Countries would gain on average about 4.5 percent in productivity if they removed their restrictive data policies, whereas the benefits of reducing data restrictions on trade in services would on average be about 5 percent."[13] Self-isolating digital trade restrictions hinder economic development, reduce productivity, deprive local enterprises of commercial opportunities, and depress export competitiveness.[14] Such measures are estimated to reduce GDP by up to 1.7 percent in some implementing countries.[15]

- **Impact on Agriculture, Manufacturing, and Other Industries:** Digital trade restrictions are damaging to industries, including agriculture, which accounts for up to 25 percent of GDP and 65 percent of the lower income population in some developing countries.[16] 75% of the value of cross-border data transfers is reported to accrue to industries including agriculture and manufacturing.[17] Digital trade and cross-border access to technology and information help small-scale agricultural producers improve crop yields; mitigate crop risks (including losses from pests, disease, and weather-related events); reduce arbitrage by middlemen (up to 70 percent of smallholder production value is captured by intermediaries); and promote sustainability (agriculture accounts for 70 percent of water use, while one third of global food production is either lost or wasted).[18] Digital trade restrictions undermine those potential gains.

- **Impact on Services Sectors:** The World Bank 2021 *World Development Report* has noted that measures that "restrict cross-border data flows ... [may] materially affect a country's competitive edge in the burgeoning trade of data-enabled services."[19] A 2020 World Economic Forum study found that, "approximately half of cross-border [services] trade is enabled by digital connectivity[, which] … has allowed developing countries and micro, small and medium-sized enterprises (MSMEs) to export through greater visibility, easier market access and less costly distribution. … Developing countries ... accounted for 29.7% of services exports in 2019."[20]

- **Impact on Financial Inclusion:** There remain over 2.5 billion unbanked people worldwide, many living in remote locations lacking physical banking infrastructure.[21] Technologies that leverage data transfers are powerful tools to increase access – particularly as 95% of the world's population is already covered by mobile broadband networks.[22] USAID estimates that, by enabling digital financial services, the GDP of emerging economies could increase by more than $3.5 trillion, or 6 percent, by 2025, and that e-commerce could increase international trade by up to $2.1 trillion by 2030.[23]

- **Impact on Global Market Access:** Digital trade and data transfers are also critical to reducing the costs of reaching markets outside of developing markets.[24] One recent study estimates that digital tools helped MSMEs across Asia reduce export costs by 82% and transaction times by 29%.[25] Cross-border access to e-commerce platforms, purchasers, suppliers, and other commercial partners allows local MSMEs to engage in international transactions and create jobs at home.[26] Digital trade restrictions make it harder to achieve these benefits.[27]

- **Impact on IoT Deployment:** A 2021 GSMA study conducted in three developing regions (in South America, South-East Asia and Africa) indicates that data localization measures on Internet of Things (IoT) applications and Machine-to-Machine (M2M) data could result in:
    - Loss of 59-68% of their productivity and revenue gains;
    - Investment losses ranging from $4-5 billion;
    - Job losses ranging from 182,000-372,000 jobs. [28]

- **Impact on Productivity:** Local enterprises rely on digital trade and data transfers to increase productivity, drive quality, and improve output in other ways. [29] To foster an environment that supports the design, production, and sale of products and services for domestic and export sales, it is important to increase the availability of IT products and services, and safeguard the ability to receive and transmit information across regional and global IT networks.

- **Impact on Cybersecurity**: Data localization mandates and cross-border data transfer restrictions are often advanced on the premise that such restrictions are necessary to ensure cybersecurity. However, *how* data is protected is more important to security than *where* it is stored, and transfer restrictions often result in *weaker*, not *stronger*, cybersecurity. Cross-border data transfers help improve cybersecurity because these transfers allow for cybersecurity tools to monitor traffic patterns, identify anomalies, and divert potential threats in ways that depend on global access to real-time data. Mandating data localization and restricting the ability to transfer and analyze data in real time creates unintended vulnerabilities. [30]

- **Impact on Privacy**: Data localization mandates and cross-border data transfer restrictions are often advanced on the premise that such restrictions are necessary to protect privacy. In fact, *how* organizations protect personal information is more important to privacy than *where* the information is stored. Organizations with operations abroad typically implement procedures to ensure that personal information is protected even when transferred outside of the country. To that end, organizations often rely on internationally recognized privacy best practices and an array of approved data transfer mechanisms. [31]

- **Impact on Inclusiveness:** Numerous organizations have underscored the importance of access to technology and digital trade, among other digital policy measures, to address inclusiveness challenges. [32] UN Sustainable Development Goal No. 5.b sets a goal of "enhance[ing] the use of enabling technology, in particular information and communications technology, to promote the empowerment of women." According to the World Economic Forum, "despite having less access to technology, women use digital platforms to their advantage… [F]our out of five small businesses engaged in cross-border e-commerce are women-owned, while just one in five firms engaged in offline trade is headed by women."[33] Data localization mandates and cross-border data transfer restrictions undermine these economic opportunities. Such restrictions are also associated with measures that are misused in some countries to target racial, ethnic, religious, and other communities.

- **Impact on Healthcare:** Digital trade and data transfers also aid in the delivery of remote health services for medically underserved populations and the search for medical treatments. Cross-border access to data and cloud-enabled technologies enable online healthcare education efforts and cross-border humanitarian assistance;[34] cross-border access to clinical testing to address not only globally prevalent, but also rare and neglected diseases; and consultations between remote providers in one country with specialists located at research facilities abroad. Cross-border consolidation of anonymized data sets from around the world also allows for real-time statistical tracking, analytics, and monitoring of aggregated anonymized data—resulting in a better grasp and more rapid response to emerging epidemics or localized disease outbreaks. [35]

- **Impact on Regulatory Compliance**: Some claim that data localization mandates and data transfer restrictions ensure governmental access to data for regulatory or investigatory purposes. The location of the data, however, is not the determining factor. On the contrary, "data localization requirements can increase … operational risks, hinder risk management and compliance, and

inhibit financial regulatory and supervisory access to information." [36] Likewise, data transfers are critical to other public policy priorities, including financial fraud monitoring and prevention; anti-money laundering; anti-corruption; and other legal compliance objectives.

- **Impact on Innovation:** Some claim that data localization mandates and data transfer restrictions promote innovation. On the contrary, innovation in BDCs benefits from an increase – not a decrease – in cross-border access to technology, ICT connectivity, and digital trade. The UN Sustainable Development Goals 9.b and 9.c stress support for "domestic technology development, research and innovation in developing countries, including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities," as well as "increasing access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries." Data localization mandates and data transfer restrictions undermine innovation —from accessing global scientific and technical research databases, to engaging in cross-border research and development (R&D), to securing regulatory product approvals for new products and services. [37]

- **Impact on COVID-19 Recovery:** As governments seek to limit the spread of COVID-19, digital trade and cross-border access to technology have become essential for countries seeking to sustain jobs, health, and education. This is particularly true for the remote work, remote health, supply chain management, and innovation-related technologies that depend on cross-border access to cloud computing resources. [38] Digital trade and data transfer restrictions complicate the economic recovery from COVID-19.

---

[1] NTIA, *Request for Comments – Connecting the Unconnected Worldwide in Light of the ITU's WTDC-21* (2021), at https://www.ntia.gov/federal-register-notice/2021/request-comments-connecting-unconnected-worldwide-wtdc-21

[2] The Global Data Alliance is a cross-industry coalition of companies that are committed to high standards of data responsibility and that rely on the ability to transfer data around the world to innovate and create jobs. GDA members include BSA members and Abbott, American Express, Amgen, AT&T, Citi, Cortex, ExxonMobil, General Motors, Lumen, LEGO, Mastercard, Medtronic, Panasonic, Pfizer, RELX, Roche, United Airlines, Verizon, Visa, and UDS Technology. BSA members include Adobe, Atlassian, Autodesk, Bentley Systems, Box, CNC/Mastercam, DocuSign, IBM, Informatica, MathWorks, Microsoft, Okta, Oracle, PTC, Salesforce, ServiceNow, Siemens Industry Software Inc., Slack, Splunk, Trend Micro, Trimble Solutions Corporation, Twilio, and Workday. BSA | The Software Alliance administers the Global Data Alliance. For more information on the Global Data Alliance, please see: https://www.globaldataalliance.org/downloads/aboutgda.pdf

[3] https://www.itu.int/en/ITU-D/Conferences/WTDC/WTDC21/R2A/Pages/default.aspx

[4] *See* Global Data Alliance, *Cross-border Data Transfers & Economic Development: Access to Global Markets, Innovation, Finance, Food, and Healthcare* (2021), at: https://globaldataalliance.org/downloads/05062021econdevelopments1.pdf

[5] Remote work, remote health, and remote educational tools have helped provide resilience and operational continuity for the organizations upon which workforces, students, and patients depend. Bridging the digital divide through data transfers and digital connectivity is equally important for MSMEs in need of new ways of reaching customers at home and abroad amidst the disruptions of COVID-19. *See* Global Data Alliance, *The Cross-Border Movement of Data: Creating Jobs and Trust Across Borders in Every Sector* (2020), at https://www.globaldataalliance.org/downloads/GDAeverysector.pdf ; See Global Data Alliance, *Jobs in All Sectors Depend Upon Data Flows* (2020), at https://www.globaldataalliance.org/downloads/infographicgda.pdf

[6] In addition to a country's policy on cross-border data transfers, its performance in digital connectivity metrics—including cellular, internet. and broadband penetration levels; access to affordable and reliable ICT equipment; and levels of computer literacy—are important factors in enabling these benefits. WEF's Internet for All initiative in East Africa, the SMART Africa Alliance, and digital initiatives under the African Continental Free Trade Area are important fora to advance both connectivity and computer literacy priorities and inclusive cross-border data policies.

[7] https://globaldataalliance.org/downloads/10052020cbdtremotework.pdf
[8] *See generally,* https://software.org/wp-content/uploads/Every_Sector_Software_Agriculture.pdf

[9] *See e.g.,* https://globaldataalliance.org/downloads/09152020cbdtremotehealth.pdf

[10] COVID-19 has led to disproportionate impacts on many women globally. *See e.g.,* United Nations. 2020. "The Impact of COVID-19 on Women." United Nations, April 9, 2020. https://www.unwomen.org/-/media/headquarters/attachments/sections/library/publications/2020/policy-brief-the-impact-of-covid-19-on-women-en.pdf?la=en&vs=1406

[11] IFC, *COVID-19 and the Insurance Industry: Why a Gender-Sensitive Response Matters* (2020).

[12] Data transfers and connectivity also support sustainable development in other areas, including:
- Innovation, industrialization, resilient infrastructure, and inclusive cities (SDGs 9, 11);
- Environmental protection and sustainability (SDGs 6-7, 13-15);
- Transparent and inclusive systems of governance (SDG 16); and

Data transfers support these SDGs in various ways, including by:
- Supporting transnational R&D efforts to find tomorrow's medical treatments and engineering innovations;
- Harnessing data analytics insights from global environmental data sets to improve outcomes in marine and terrestrial conservation and sustainability, as well as to take more effective action on climate change;
- Supporting open, secure, and inclusive digital ecosystems; and
- Providing citizens with access to information and counteract state efforts to repress individual rights and freedoms.

[13] World Bank, World Development Report (2020), at: https://www.worldbank.org/en/publication/wdr2020

[14] *See e.g.,* Ferracane et al., *The Costs of Data Protectionism,* VOX (2018); Ferracane et al., *Do Data Policy Restrictions Impact the Productivity Performance of Firms and Industries?* ECIPE Digital Trade Estimates Working Paper No. 1 (2019); Lund et al., Defending Digital Globalization, McKinsey Global Institute (2017). Access to foreign markets, innovation, education, and economic growth are all jeopardized by governmental measures that: (1) block cross-border access to information; (2) interfere with the circulation of technology, knowledge, and commercial data; (3) restrict connectivity to the Internet; (4) deny MSMEs and other local enterprises or citizens opportunities to engage with the technologies they need to engage with the economy. *See* https://hbr.org/2017/07/60-countries-digital-competitiveness-indexed

[15] *See* Lee-Makiyama et al., *The Costs of Data Localization*, ECIPE Occasional Paper (2014), at: https://ecipe.org/wp-content/uploads/2014/12/OCC32014__1.pdf

[16] World Bank, *Agriculture and Food* (2020), https://www.worldbank.org/en/topic/agriculture/overview

[17] *See* Global Data Alliance, *The Cross-Border Movement of Data: Creating Jobs and Trust Across Borders in Every Sector* (2020), at https://www.globaldataalliance.org/downloads/[]everysector.pdf ; See Global Data Alliance, *Jobs in All Sectors Depend Upon Data Flows* (2020), at https://www.globaldataalliance.org/downloads/infographic[].pdf; Global Data Alliance, *Cross-Border Data Transfers Facts and Figures* (2020), at https://www.globaldataalliance.org/downloads/[]factsandfigures.pdf

[18] *See e.g.,* Global Data Alliance, *Access to Global Markets, Innovation, Finance, Food, and Healthcare* (2021) (forthcoming); Every Sector Is a Software Sector: Agriculture, https://software.org/wp-content/uploads/Every_Sector_Software_Agriculture.pdf; World Bank, *Agriculture and Food* (2020), https://www.worldbank.org/en/topic/agriculture/overview; IDB Climate Smart Agriculture, *Thematic Paper: Climate-Smart Agriculture* (Revised Version), p. 5, http://www.iadb.org/document.cfm?id=EZSHARE-1914875107-52. The IDB explains the underlying challenge that cross-border access to technologies and export markets can help ameliorate: "Smallholders typically capture a low share of the final value of its products and encounter non-transparent commercialization markets and difficulties in buying inputs and selling their products at fair prices. On top of that, small farm holders typically face limited access to export to new markets and unfavorable prices in international trade, and they are particularly vulnerable to volatility in commodity prices."

[19] World Bank, *World Development Report – Data For Better Lives* (2021), at: https://openknowledge.worldbank.org/bitstream/handle/10986/35218/9781464816000.pdf

[20] World Economic Forum, Paths Towards Free and Trusted Data Flows (2020).

[21] USAID, US Global Development Lab website, available at: https://www.usaid.gov/digital-development/digital-finance

[22] Ericsson. 2019. *Ericsson Mobility Report November 2019,* at https://www.ericsson.com/en/mobility-report/reports/november-2019

[23] USAID Digital Strategy, p. 9; *see also See* Global Data Alliance, *Access to Global Markets, Innovation, Finance, Food, and Healthcare* (2021), at https://globaldataalliance.org/downloads/05062021econdevelopments1.pdf

[24] Global Data Alliance, *Cross-Border Data Transfers and Supply Chain Management* (2021), at https://globaldataalliance.org/downloads/03182021[]primersupplychain.pdf

[25] Micro-Revolution: The New Stakeholders of Trade in APAC, Alphabeta, 2019. Likewise, the Asia Development Bank Institute estimates that electronic commerce platforms, which operate on the basis of cross-border data transfers, have helped some local firms reduce the cost of distance in trade by 60%. Asia Development Bank Institute, *The Development Dimension of E-Commerce in Asia: Opportunities and Challenges* (2016), at: https://www.adb.org/sites/default/files/publication/185050/adbi-pb2016-2.pdf

[26] USAID Digital Strategy, p. 37. As USAID has explained,"[d]igital ecosystems have the potential to equip informal merchants, women entrepreneurs, smallholder farmers, and MSMEs engaged in cross-border trade with access to markets, information, and finance. These diverse users require trustworthy services that reflect their needs. ... [D]igital trade that spans borders depends on free data flows, digitized customs, and innovations in trade finance made possible by new approaches to lending."

[27] *See* Global Data Alliance, *Access to Global Markets, Innovation, Finance, Food, and Healthcare* (2021), at https://globaldataalliance.org/downloads/05062021econdevelopments1.pdf

[28] GSMA, Cross-border Data Flows – The Impact of Localization on IOT (2021).

[29] Data localization mandates and unnecessary data transfer restrictions hurt local innovation because a country that limits cross-border data transfers limits its own industries' access to technologies and data sources that are critical to growth and innovation, business operations, and the transfer of technology. These include: (a) productivity-enhancing software solutions; (b) scientific, research, and other publications; and (c) manufacturing data, blueprints, and other operational information. Faced with higher software costs and an unpredictable environment for R&D investments, local industries face challenges keeping technological pace with foreign competitors — threatening both domestic and export market sales. Furthermore, as data restrictions place an undue burden on industries operating in countries imposing them, they also undermine those countries' attractiveness as a destination for investment and R&D.

[30] Global Data Alliance, *Cross-Border Data Transfers and Data Localization* (2020), at https://www.globaldataalliance.org/downloads/02112020GDAcrossborderdata.pdf

[31] These data transfer mechanisms may include adequacy decisions, certifications, codes of conduct, Binding Corporate Rules (BCRs), and Standard Contractual Clauses (SCCs) that contain built-in data protection safeguards.
[32] UNCTAD, *Digital trade facilitation for women cross-border traders* (2020), at: https://unctad.org/news/digital-trade-facilitation-women-cross-border-traders; E-Trade for Women Website (2019), at: https://etradeforall.org/et4women/ ; United Nations Rwanda, *Closing the Gender Digital Divide - Boosting Africa's Economy* (2019), at https://rwanda.un.org/index.php/en/7153-closing-gender-digital-divide-boosting-africas-digital-economy ("According to the World Bank, a 10% increase in digital penetration could result in over 1% increase in GDP, while closing the gender digital divide could add up to 140 million USD per year to the mobile industry for the next 5 years."); UNESCO, *Overcoming the Digital Divide - Understanding ICTs and Their Potential for the Empowerment of Women* (2003), at: http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/SHS/pdf/Overcoming-Gender-Digital-Divide.pdf; OECD, *Bridging the Digital Gender Divide* (2018), at: https://www.oecd.org/digital/bridging-the-digital-gender-divide.pdf; *See also,* Global Innovation Forum, *How women are leveraging digitally-enabled networks and how governments can help through COVID-19* (2020), at: https://globalinnovationforum.com/wp-content/uploads/2020/06/2020-06-19-Power-of-a-Global-Network-Final-reduced-size-for-web.pdf

[33] *See* World Economic Forum, E-commerce is Globalization's Shot at Equality (2021), at: https://www.weforum.org/agenda/2020/01/e-commerce-sme-globalization-equality-women/ (citing statistics showing that, in Indonesia, women involved in online commerce generate more revenue than that contributed by those in traditional commerce, and that one in three Middle East start-ups is female-founded.)

[34] World Health Organization, Long-Running Telemedicine Networks Delivering Humanitarian Services, Bulletin of the World Health Organization (2012), https://www.who.int/bulletin/volumes/90/5/11-099143.pdf

[35] *See* Global Data Alliance, *Access to Global Markets, Innovation, Finance, Food, and Healthcare* (2021) (forthcoming); Global Data Alliance, Cross-Border Data Transfers and Innovation (2021), at https://globaldataalliance.org/downloads/04012021cbdtinnovation.pdf; Global Data Alliance, Cross-Border Data Transfers and Remote Health Services (2020), at https://globaldataalliance.org/downloads/09152020cbdtremotehealth.pdf

[36] *See e.g.,* United States-Singapore Joint Statement on Financial Services Data Connectivity, at: https://www.mas.gov.sg/news/media-releases/2020/united-states-singapore-joint-statement-on-financial-services-data-connectivity.

[37] *See* Global Data Alliance, *Cross-Border Data Transfers and Innovation* (2021), at https://globaldataalliance.org/downloads/04012021cbdtinnovation.pdf

[38] *See id.,* Global Data Alliance, *Cross-Border Data Transfers and Remote Work* (2020), at https://globaldataalliance.org/downloads/10052020cbdtremotework.pdf; *See* Global Data Alliance, *Cross-Border Data Transfers and Remote Health Services* (2020), at https://globaldataalliance.org/downloads/09152020cbdtremotehealth.pdf Global Data Alliance, *Cross-Border Data Transfers and Supply Chain Management* (2021), at https://globaldataalliance.org/downloads/03182021_primersupplychain.pdf