EXHIBIT 46

GLOBAL DATA ALLIANCE
TRUST ACROSS BORDERS

INTERNATIONAL DEVELOPMENT SERIES NO. 1

CROSS-BORDER DATA TRANSFERS & ECONOMIC DEVELOPMENT

Access to Global Markets, Innovation, Finance, Food, and Healthcare

Cross-border data transfers and digital connectivity are critical to sustainable economic development. This primer—the first in this series—focuses on the role of cross-border data transfers and digital connectivity in ensuring access to global markets, innovation, finance, food, and healthcare.

"Ensuring the free flow of data is an essential enabler for many online services, such as e-commerce, digital payments, and other cloud services, to work across borders."

World Bank, *A Single Digital Market for East Africa*, p. 9.

ECONOMIC DEVELOPMENT BENEFITS OF CROSS-BORDER CONNECTIVITY AND DATA TRANSFERS

Cross-border access to data, which may embody knowledge, technological tools, and new business opportunities, is critical to enhancing living standards and promoting sustainable development. The ability to access technologies and transfer data across borders is critical to:

- helping micro-, small-, and medium-sized enterprises (MSMEs) and other enterprises access overseas markets and supply chains;
- improving innovation and competitiveness;
- building access to finance;
- growing agricultural sustainability and productivity; and
- 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.[1] We address each of these points below.

Improving Access to Global Markets

MSMEs and other developing country enterprises' access to global markets where they can offer and sell their services and products depends on cross-border access to information and cloud-enabled technologies. Cross-border access to marketplaces, purchasers, suppliers, and other commercial partners allows local MSMEs to engage in international transactions and create jobs at home. As USAID has explained,

> Digital 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.[2]

Data transfer restrictions and data localization mandates impede access to foreign markets and trade financing.

REALIZING THE PROMISE OF THE DIGITAL ECONOMY FOR ALL

Realizing the promise of the digital economy depends on 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.

2019 AlphaBeta Study estimates that digital tools helped MSMEs across Asia **reduce export costs by 82 percent and transaction times by 29 percent.**

AlphaBeta, Micro-Revolution: The New Stakeholders of Trade in APAC (2019).

A 2021 GSMA study conducted in three developing regions (in South America, SouthEast Asia and Africa) indicates that data localization measures on IoT applications and machine-to-machine data could result in:

- Loss of 59–68 percent of their productivity and revenue gains;
- Investment losses ranging from $4–5 billion;
- Job losses ranging from 182,000–372,000 jobs.

GSMA, Cross-border Data Flows – The Impact of Localisation on IOT (2021).

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 and especially on trade in services."

"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."

World Bank, World Development Report (2020).

A 2020 World Economic Forum study found that, "approximately half of crossborder [services] trade is enabled by digital connectivity [, which] …has allowed developing countries and micro, small and mediumsized enterprises (MSMEs) to export through greater visibility, easier market access and less costly distribution.

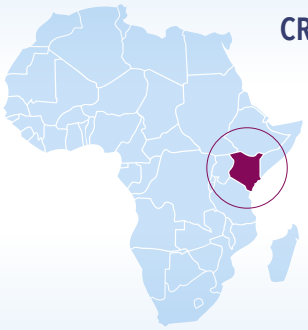
"Developing countries...accounted for 29.7% of services exports in 2019."

WEF, Paths Towards Free and Trusted Data Flows (2020).

Improving Access to Technology to Innovate and Compete

Cross-border access to technology and data transfers enhances the ability of all economies to innovate and compete in the 21st century. This includes the ability to access: (1) productivity-enhancing software solutions; (2) scientific, research, and other publications; and (3) manufacturing data, blueprints, and other operational information. To foster an environment that supports research and development (R&D) and investments in the design, production, and sale of products and services for domestic and export sales, it is important to increase the availability and affordability of IT products and services, and safeguard the ability to receive and transmit information across regional and global IT networks. Access to digital infrastructure is important for MSMEs and other local enterprises because access can increase resilience and the ability to respond to changes in changes in the global supply chain, as well as innovation and the diffusion of technologies in the local ecosystem.

Cross-border data transfers also enable the deployment of tools that facilitate teleworking, virtual collaboration, online training, and the remote delivery of services, including virtual healthcare solutions. These tools include cloud-based libraries and databases, video-conferencing applications, and interactive collaboration platforms.



CROSS-BORDER DATA TRANSFERS AND KENYA'S DIGITAL ECONOMY BLUEPRINT

Cross-border data flows and digital market access offer Kenya **"a leapfrogging opportunity on economic development"** in a digital economy where "goods, services and expertise…[are] accessible across borders," and "where citizens benefit from direct access to global markets."

Kenya 2019 Digital Economy Blueprint.[3]

Improving Access to Finance

Advances in financial inclusiveness, financial transparency, and financial security across developing countries also depend on cross-border access to data and cloud-enabled technologies. There remain more than 2.5 billion unbanked people worldwide, many living on remote and isolated locations lacking in banks or other on-the-ground financial service providers.[4] Technologies that leverage data transfers can increase access to financial services–particularly as 95 percent of the world's population is already covered by mobile broadband networks.[5] These include:

- **Microlending.** Microfinance institutions use technologies based on data transfers to allow them to provide better loans, achieve greater repayment rates, and lower interest rates for applicants. For example, in many developing countries, local financial institutions are able to offer micro-loans to citizens and businesses that would not otherwise have access to credit, using cloud-enabled data analytics to determine credit risk profiles and deliver loans through automated processes.[6]
- **Remittances to developing countries.** More than ever, remittances are of vital importance in developing countries. According to the World Bank, remittances to low- and middle-income countries reached a record high of $529 billion in 2018.[7] Financial institutions have reported savings between 40 and 70 percent in foreign exchange costs, and payment times averaging just a few seconds.[8]
- **Financial transparency, anti-corruption, and anti-money laundering.** As compared with cash-based transactions, increased use of "mobile transfers" and "mobile money," which often depend on cross-border access to cloud-based financial service platforms, allow for enhanced transparency in public sector spending; reduced "off the books" cash transactions; and increased predictability in the banking system.

By enabling digital financial services, the Gross Domestic Product (GDP) of emerging economies could increase by more than $3.5 trillion, or 6 percent, by 2025. E-commerce could increase international trade by up to $2.1 trillion by 2030.

USAID Digital Strategy, 2020–2024.

CROSS-BORDER DATA TRANSFERS AND DEVELOPING COUNTRY SERVICES TRADE

15%

Estimated increase in developing country share of global services, if developing countries fully adopt digital tools, including through cross-border access to cloud and software-enabled technologies.

$3.5 Trillion

Estimated GDP increase for developing countries that enable digital financial services, including via benefits of cross-border access to financial platforms, productivity benefits through transnational data analytics, and the seamless and responsible transfers of financial data across borders.

Manyika et al., "How Digital Finance Could Boost Growth in Emerging Economies," McKinsey Global Institute (2016).

Improving Agricultural Sustainability and Productivity

The World Bank estimates that agriculture accounts for up to 25 percent of GDP and 65 percent of the lower income population in some developing countries, and that growth in the agriculture sector is two to four times more effective in raising incomes among those populations.[9] Cross-border connectivity and access to cloud-enabled technologies can make these agricultural economies significantly more productive, promising widespread benefits to large portions of the populace.[10] Benefits include:

- Cross-border access to satellite and sensor-driven data that can help inform planting and harvesting decisions, including temperature, precipitation, and other environmental data;
- Cross-border access to information on cost-effective techniques for crop development and protection;
- Cross-border access to up-to-date, reliable information on export markets, pricing, insurance, and shipping options; and
- Cross-border access to sales opportunities, and to online marketplace information on sellers and buyers.

Cross-border access to technologies and information help small-scale agricultural producers mitigate crop risks (including losses from pests, disease, and weather-related events) and improve crop yields. They can also help farmers reduce transaction costs and arbitrage by middlemen, given that up to 70 percent of smallholder production value is captured by different intermediaries.[11] They can also promote greater sustainability, given that agriculture accounts for 70 percent of water use and given that one third of global food production is either lost or wasted.[12]

The OECD's Report on Trade in the Digital Era explains that, **"[d]igitalisation is linked with greater trade openness, selling more products to more markets and in less concentrated export baskets. A 10% increase in 'bilateral digital connectivity' raises goods trade by nearly 2% and trade in services by over 3%."**

OECD, Report on Trade in the Digital Era.

Improving Access to Healthcare

Remote health services for medically underserved populations and the search for tomorrow's medical treatments also depend on cross-border access to data and cloud-enabled technologies. These technologies can improve health outcomes for remote and medically underserved populations as follows:

- Cross-border data transfers and digital connectivity enable online healthcare education efforts of international health and development agencies;
- Cross-border access to clinical testing and other biopharmaceutical R&D data aids in the study and treatment of diseases–not only globally prevalent, but also rare and neglected diseases;
- Cross-border consultations between remote providers in one country with specialists located at research facilities abroad can help improve health outcomes in non-routine cases;
- Cross-border consolidation of anonymized data sets from around the world 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; and
- Cross-border humanitarian assistance is also possible through "telemedicine networks [that]… deliver humanitarian services on a routine basis, many to low-income countries."[13]

CONCLUSION

Cross-border data transfers are a critical tool to facilitate developing country access to global markets, innovation, finance, food, and healthcare. Countries that adopt open and forward-looking cross-border data policies will be best positioned to ensure their access to these factors of economic opportunity in the digital 21st century.

Endnotes

1 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.

See also, World Bank, *World Development Report* (2020), at: https://www.worldbank.org/en/publication/wdr2020; World Bank, *World Development Report – Data For Better Lives* (2021), at: https://openknowledge.worldbank.org/bitstream/handle/10986/35218/9781464816000.pdf.

2 USAID Digital Strategy, 2020–2024, https://www.usaid.gov/usaid-digital-strategy, p. 37.

3 *See also*, Kenya Information, Communication, Technology, Innovation and Youth Affairs, Draft Data Protection (General) Regulations 2021 (2021), at: https://www.odpc.go.ke/wp-content/uploads/2021/04/Data-Protection-General-regulations.pdf (stating that any cross-border data provisions shall *not* "arbitrarily or unjustifiably discriminate against any person; impose a restriction on trade; [or impose] ... restrictions on transfers of personal data ... greater than are required to achieve the objective.")

4 USAID, US Global Development Lab, https://www.usaid.gov/digital-development/digital-finance.

5 Ericsson, *Ericsson Mobility Report November 2019*, https://www.ericsson.com/49d1d9/assets/local/mobility-report/documents/2019/ericsson-mobility-report-june-2019.pdf.

6 Cutting-edge technologies such as data analytics (to review available past data) and artificial intelligence (to anticipate future outcomes) play an important role in the expansion of credit channels available to these underserved customers. These technologies heavily rely on cross-border data flows. Oftentimes, the data used to enable the cloud-based service being delivered must travel across borders, even if the financial service provider and its customer are in the same country. For example, Tradeteq, a smart technology trade finance platform, uses a credit model based on artificial intelligence that goes beyond financial information, and includes socio-economic, geographic, and other information about the company that is used to base finance investment decisions. The algorithms used to power this tool also rely on a large amount of data collected, processed, and analyzed in various parts of the world. Tradeteq, *The AI-Driven Trade Finance Investment Platform*, https://www.finyear.com/Tradeteq-the-AI-driven-trade-finance-investment-platform_a40656.html.

7 World Bank, *Record High Remittances Sent Globally in 2018*, https://www.worldbank.org/en/news/press-release/2019/04/08/record-high-remittances-sent-globally-in-2018.

8 Rodrigo Mejia-Ricart, Camilo Tellez, and Marco Nicoli, *Paying across Borders: Can Distributed Ledgers Bring Us Closer Together?* (March 26, 2019), https://blogs.worldbank.org/psd/paying-across-borders-can-distributed-ledgers-bring-us-closer-together.

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

10 *See generally*, Every Sector Is a Software Sector: Agriculture, https://software.org/wp-content/uploads/Every_Sector_Software_Agriculture.pdf.

11 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."

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

13 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

EXHIBIT 47

DIGITAL STRATEGY
2020–2024

USAID
FROM THE AMERICAN PEOPLE

ADMINISTRATOR'S MESSAGE

Today, many of us take for granted our access to digital technology like smartphones and the Internet. They have become an integral part of our day-to-day lives and increasingly our default way of communicating, learning, and doing business.

We should remember, however, that four billion people in developing countries still do not have access to the Internet, including a staggering 93 percent of households in the least-developed nations. Further exacerbating the situation, the gender digital divide continues to grow. Women are, on average, 14 percent less likely to own mobile phones than their male counterparts, and 43 percent less likely to engage online.

Digital technology's profound potential is tempered by the looming threats posed by authoritarian governments and malevolent actors who use digital tools to suppress political dissent and other individual freedoms while also limiting competition in the marketplace. Across these two, at times incongruent, digital worlds, we must be steadfast in ensuring we do not leave behind the poor and marginalized.

I am pleased to share with you the first *U.S. Agency for International Development (USAID) Digital Strategy*, an Agency-wide vision for the responsible use of digital technology in development and humanitarian work.

Building on decades of leadership in digital development, the *Strategy* outlines USAID's deliberate and holistic commitment to strengthen open, inclusive, and secure digital ecosystems in each country in which we work. These digital ecosystems are transforming how people worldwide gain access to information, goods, services, and opportunities; in today's world, a country cannot achieve self-reliance without them.

The field of international development is not immune to the digital changes around us, and, as the premier development donor, we at USAID have a responsibility—to U.S. taxpayers, to the communities we serve, and to ourselves—to meet the challenges and seize the opportunities of the digital age. This is central to USAID's mission to end the need for foreign assistance, but we cannot do it alone. We ask our partners and colleagues around the world to engage with us.

I am confident that, through collaboration, ingenuity, shared values, and collective experience, the future of our digital world will be bright for all.

Ambassador Mark Andrew Green
USAID Administrator

CONTENTS

EXECUTIVE SUMMARY

Countries around the world are in the midst of a historic digital transition. The rapid development and adoption of digital technology are transforming industries, governments, economies, and societies. Digital ecosystems—the stakeholders, systems, and enabling environments that together empower people and communities to use digital technology to gain access to services, engage with each other, or pursue economic opportunities—hold immense potential to help people live freer, healthier, more prosperous lives. These ecosystems can help drive economic empowerment and financial inclusion, advance national security, support accountability and transparency in governance, introduce new and innovative health solutions, and make development and humanitarian assistance more efficient and effective.

Digital transformation comes with the risk of increasing inequality, repression, and instability. Malign actors capture digital infrastructure to advance divisive messaging, crime, and illicit finance. Despite the global prevalence of mobile phones and the Internet, the reality in many communities does not yet reflect the potential of a digital ecosystem that drives sustainable and equitable growth. Vulnerable or marginalized groups often find themselves excluded from the digital ecosystem because of inadequate infrastructure or a lack of affordable or relevant products, services, and content; or because political, social, environmental, or economic factors inhibit equitable uptake.

DIGITAL TECHNOLOGY

In this *Strategy*, we use the term "digital technology" not only to describe a type of technology but also to refer to the platforms, processes, and range of technologies that underpin modern information and communications technologies (ICT), including the Internet and mobile-phone platforms, as well as advanced data infrastructure and analytic approaches.

Now more than ever, as the global development community works to deliver life-saving assistance and relay crucial information in the face of the pandemic of COVID-19, the role of digital technology is undeniable. Teachers deliver lessons remotely to homebound classes; health care workers diagnose patients via telemedicine to minimize their risk of exposure; and people worldwide seek out online information about the pandemic's impact on their lives and livelihoods. Across all of these activities, digital technology is what allows us to remain connected even while physical distancing requires us to be apart. It is more important than ever for USAID to help communities be resilient in the face of threats like this global pandemic, by ensuring all countries have robust digital ecosystems that are open, inclusive, secure, and of benefit to all.

In light of this, *The U.S. Agency for International Development (USAID) Digital Strategy (2020-2024)* will position the Agency to advance our mission—to end the need for foreign assistance—through digitally supported programming that fosters the Journey to Self-Reliance in our partner countries and maximizes the benefits, while managing the risks that digital technology introduces into the lives of the communities we serve.

GOAL OF THE USAID *DIGITAL STRATEGY*: To achieve and sustain open, secure, and inclusive digital ecosystems that contribute to broad-based, measurable development and humanitarian-assistance outcomes and increase self-reliance in emerging market countries.

The *Digital Strategy* centers around two core, mutually reinforcing objectives:

- Improve measurable development and humanitarian assistance outcomes through the responsible use of digital technology in USAID's programming; and
- Strengthen the openness, inclusiveness, and security of country-level digital ecosystems.

DIGITAL ECOSYSTEM

A "digital ecosystem" comprises the stakeholders, systems, and enabling environments that together empower people and communities to use digital technology to gain access to services, engage with each other, or pursue economic opportunities. See Annex III: Glossary for examples of the critical components of a digital ecosystem.

These objectives, and USAID's approach to achieving them, support the goals and principles outlined in key policy documents, including the *USAID Policy Framework*; the *Department of State-USAID Joint Strategic Plan*; and the *U.S. National Cyber, National Security,* and *Counterterrorism Strategies*.

USAID will work to improve the efficiency and effectiveness of foreign assistance through the consistent and responsible use of digital technology in our development and humanitarian programming. Through our programmatic investments, USAID will work to strengthen the critical components of digital ecosystems that enable sustainable growth in a digital age: a sound enabling environment and policy commitment; robust and resilient digital infrastructure; capable digital service providers and workforce; and, ultimately, empowered end-users of digitally enabled services.

As we become a more responsive, field-oriented Agency that fosters self-reliance around the globe, USAID must consider the capacities and commitment in the countries where we work in order to capitalize on the opportunities and address the risks inherent in digital systems. USAID's investments in country-level digital infrastructure and systems must lead to sustainable ownership and management by local governments, citizens, and the private sector. Where capacity is lacking, we can build our partners' technical capabilities to oversee these systems and responsibly leverage the data they produce to inform their own decisions. Where commitment is low, USAID can empower and equip civil society and the private sector to navigate complex and rapidly evolving digital ecosystems and hold governments accountable. **For communities to achieve self-reliance in the digital age, open, inclusive, and secure digital ecosystems that preserve and protect the rights and agency of individuals are critical.** The proper use, understanding, and application of technology is a development imperative.

USAID will take a multipronged approach, implemented under the leadership and authorities granted to various Operating Units (OUs) within the Agency to achieve the objectives of the *Digital Strategy*. Close consultation and collaboration with governments, civil society, the private sector, and local communities in countries where we work will guide this approach. We will work to develop the tools and resources necessary to provide effective development and humanitarian assistance in a digital age; we will build capacity to better navigate the unique opportunities and risks that digital technology presents across USAID's Program Cycle; we will accelerate the transition to a default position of leveraging digital technology responsibly and appropriately in our programming; and we will invest in our significant human capital to continue to build the USAID of tomorrow.

USAID will work with U.S. Government interagency partners and coordinate with interagency initiatives to implement the objectives of the *Digital Strategy*; address challenges and capitalize on opportunities in countries in which we work; and maximize positive outcomes across development, humanitarian, security, health, and human-rights efforts.

Implementation of the *Digital Strategy* will start in a subset of target countries and extend to all USAID OUs over its five-year span. The launch of the *Digital Strategy* will shepherd the creation of a Digital Learning Agenda to promote collaborative exploration of the highest-impact pathways for inclusive, sustainable growth of digital ecosystems. Following the *Strategy*'s launch, USAID will release dedicated guidance and training materials to support our Missions and Bureaus throughout implementation, as well as a Monitoring and Evaluation Plan that will enable us to evaluate the *Strategy*'s impact over the next five years to ensure continual learning and adaptation in a rapidly evolving digital age.

The USAID Digital Strategy *is a development policy document focused on the promotion of secure, open, and inclusive country-level digital ecosystems and the programmatic use of digital technology in the Agency's development and humanitarian assistance, which we commonly refer to as "digital development." While the* Digital Strategy *primarily focuses on enhancing USAID's programmatic activities, the partnership and leadership of USAID's operational components are crucial to executing the* Strategy*, including the Bureau for Management (*e.g.*, the Office of the Chief Information Officer [M/CIO] and the Office of Acquisition and Assistance [M/OAA]); the Office of Human Capital and Talent Management (HCTM); and the Office of the General Counsel (GC).*

This Strategy *is a complement to the authorities and responsibilities of these operational entities, and the Agency's Regional and Pillar Bureaus will execute it in partnership with them. The implementation of the* Strategy *will be consistent with all applicable laws, including, but not limited to, the Clinger-Cohen Act of 1996, Electronic Government (eGov) Act of 2002/The Federal Information Security Management Act (FISMA) of 2002, the Federal Information Security Modernization Act of 2014, the Federal Information Technology Acquisition Reform Act of 2015, the Foundations for Evidence-Based Policymaking Act (Evidence Act), and the Grants Oversight and New Efficiency Act.*

DEVELOPMENT IN A DIGITAL AGE

The world has changed dramatically since USAID's founding in 1961, and the pace of change is accelerating. Digital technology increasingly pervades daily life. In recent years, the proliferation of digital technology has transformed the ways in which the world's economies, governments, and people interact and engage with one another.[1] Many experts say that we are now on the cusp of a Fourth Industrial Revolution,[2] which will touch every industry and upend existing business models, including those that were disrupted just a few years earlier.

Community leaders engage their constituents via popular mobile messaging platforms. Utilities operate and secure power grids and other infrastructure with networked computers and sensors. Transformative technologies such as artificial intelligence (AI) offer tremendous potential to better tailor goods and services to meet individual needs. Blockchain-backed start-ups work to tackle intractable problems like corruption, lack of transparency, and unique identification for a global citizenry. Some small- and medium-sized enterprises (SMEs) and motivated entrepreneurs are becoming micro-multinationals by opening up their shops and skill sets to online global markets and the burgeoning "gig economy."[a]

Whereas mobile phones and the Internet were once limited to wealthy countries, the rapid diffusion of digital technology holds the promise of a new digitally enabled global society, with the potential to spur economic growth, improve development outcomes, transform health delivery, lift millions out of poverty, and ultimately move us closer to ending the need for foreign assistance. For example, expanding the availability of fast Internet in Africa has increased employment levels and average income, especially for high-skilled jobs and workers.[3] When properly deployed and regulated, advanced communications networks enable "smart city" applications that could mitigate the negative effects of urban population growth, improve the management of natural resources, and increase agricultural productivity.[4]

However, these same systems can have undesirable consequences when not developed with respect for the individual rights of users. Authoritarian governments and malign actors can wield digital tools to suppress political dissent, quash individual freedoms, limit competition in the marketplace, or take advantage of individuals who lack digital literacy. On the grounds of analytical support, social engagement, or civil protection, regimes can deploy digital tools as instruments of intimidation, surveillance, theft, and control—effectively silencing, rather than amplifying, critical voices.[5] Digital technology has increased the risks young people, women, and religious and ethnic minorities face, through the creation of new platforms that enable bullying, hate speech, sexual abuse, exploitation, victimization, recruitment into trafficking, and radicalization to violence. Additionally, digitally augmented programming that ignores geographic or gender disparities in the access to, or use of, mobile phones, or whose algorithms fail to correct for bias, could end up failing the most vulnerable or marginalized populations.[6]

How society evolves in the digital age does not depend only on new technology and innovation, but on non-digital building blocks that make up the digital ecosystem—elements such as domestic and international regulatory environments, political economy, institutional capacity, and individuals' skills, protections, and agency. While digital ecosystems can, and should, evolve according to market forces, donors such as USAID can help ensure digital ecosystems serve all citizens, especially the most marginalized and vulnerable. American values of inclusion, freedom, and accountability must guide our digital investments. Our role should be to foster a locally owned approach, adapt our approaches to local conditions where necessary and appropriate,[b] and ensure the foundational ecosystem components and necessary guardrails are in place to guarantee that digital technology benefits and protects all citizens.

a. The "gig economy" is a system in which individuals or organizations engage independent workers on short-term assignments, often via online platforms, such as Amazon Mechanical Turk, TaskRabbit, Uber, *etc.*

b. In certain cases, a desired local approach could run counter to established U.S. policies, like those on cross-border flows of data and data-localization. USAID-funded projects should not support the adoption of digital development schemes that run counter to established U.S. trade and national-security policies.

USAID'S VISION

The vision of the* USAID Digital Strategy *is to advance progress in communities in our partner countries on their Journeys to Self-Reliance through efficient, effective, and responsible digital initiatives that enhance security and economic prosperity, consistent with the American values of respect for individual rights, freedom of expression, and the promotion of democratic norms and practices.

USAID will work toward two mutually reinforcing strategic objectives:

- Improve measurable development and humanitarian-assistance outcomes through the responsible use of digital technology in our programming; and
- Strengthen the openness, inclusiveness,[c] and security of country digital ecosystems.

The strategic use of digital technology in USAID's programming not only should help us achieve our development and humanitarian-assistance outcomes but also strengthen the critical components of the digital ecosystem that help us achieve our own goals and empower all individuals to achieve their own aspirations. USAID's digital interventions must go beyond the activity level and, when possible, address the systemic gaps and market failures in digital technology that make the need for donor interventions a persistent reality.

The *Digital Strategy* supports the 2018–2022 *State-USAID Joint Strategic Plan* that calls on the U.S. Department of State and USAID to "[t]ransition nations from assistance recipients to enduring diplomatic, economic, and security partners" (Strategic Objective 3.1).[8] As USAID looks forward to the day when foreign assistance is no longer necessary, we must understand the potential for digital technology to accelerate or undermine the Journey to Self-Reliance.

TWO MUTUALLY REINFORCING OBJECTIVES

Strong digital ecosystems enable better development programming across sectors, which, in turn, can drive improvements in digital ecosystems. For example, in the Kingdom of Cambodia, USAID's Development Innovations project helped connect civil society and the technology community to design and use digital solutions to address development challenges. These tech-enabled solutions reached 1.6 million Cambodians and improved government accountability; the protection of natural resources; education; health care; and the preparedness for, and response to, disasters. The project cultivated a diverse community of Cambodian innovators who can design and build technology products to address their own development challenges. By focusing not only on the digital solutions but also on advancing opportunities in technology and entrepreneurship for local innovators, youth, and women, the project has built a pipeline of small businesses that will continue to strengthen and shape Cambodia's digital ecosystem.[7]

c. Access, affordability, and adoption are the three principle drivers of digital inclusion. Inclusive digital ecosystems describe systems in which digital infrastructure, technology, and services are not only equally accessible and available to everyone, but that are also affordable to all members of society and designed to account for the cultural, contextual, and other barriers (*e.g.*, gender, language, disabilities, education, *etc.*) that must be overcome in order to become a regular user of the Internet.

THE DIGITAL JOURNEY TO SELF-RELIANCE

A country's commitment and capacity to respond to the unique opportunities and challenges posed by the digital age depends upon the ability to become self-reliant. In alignment with existing U.S. policies and frameworks,[9] and in cooperation with the U.S. Government interagency, USAID plays an integral role in supporting governments, civil society, the private sector, and local communities along their digital Journeys to Self-Reliance.

USAID must help to strengthen the security and resilience of digital ecosystems in our partner countries, which increasingly will serve as the foundation of open, accountable, and citizen-responsive governance; inclusive development; and economic growth. USAID must provide opportunities to train the workforce of tomorrow in our partner countries and build digital literacy among individuals in the developing world.

USAID recognizes that fostering self-reliance in the digital age means working with all actors in a local system, which includes foreign firms and non-governmental organizations (NGOs). Additionally, fostering self-reliance in digital ecosystems means building productive linkages that reach beyond national borders. These cross-border linkages can strengthen the local environment for self-reliance by speeding and spreading innovation; creating access to new markets via digital platforms; and fostering a more secure, trustworthy online environment. Indeed, digital issues often transcend national boundaries. Digital businesses operate in international markets, cyber threats cross borders with ease, and nations depend on a global network of fiber-optic cables. Each country's Journey to Self-Reliance is linked to a digital ecosystem that is part of a regional or global whole and will benefit from an open, interoperable, secure, and reliable cyberspace.

ADVANCING U.S. NATIONAL SECURITY AND ECONOMIC PROSPERITY

As stated in the *U.S. National Security Strategy*, "America's response to the challenges and opportunities of the cyber era will determine our future prosperity and security."[18] While the economy of the United States becomes increasingly dependent on digital technology, and as Americans rely more heavily on a secure cyberspace, investments in the development of robust, resilient, and secure digital economies become even more crucial to our national security and economic prosperity. Thus, one of the pillars of the *U.S. National Cyber Strategy* is to "promote an open, interoperable, reliable, and secure Internet," and to build the cyber capacity of our allies and partners.[19]

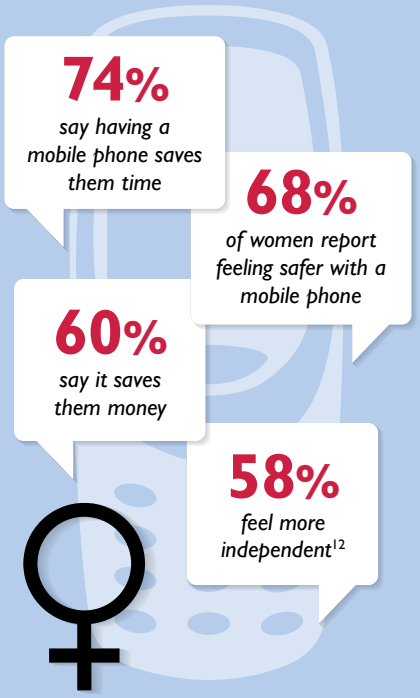
THE FOLLOWING ARE EXAMPLES OF HOW DIGITAL TECHNOLOGY CAN PROMOTE SELF-RELIANCE:

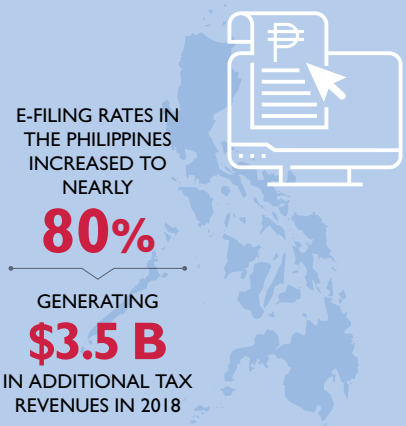
OPEN AND ACCOUNTABLE GOVERNANCE

In Ukraine, the pilot of the USAID-funded e-procurement platform, ProZorro, **helped the national government cut costs by 12 percent** (which amounted to $1.4 billion by 2018).[10] Perceived corruption decreased from 59 percent to 29 percent from 2016–2017, and the percentage of suppliers who are small and medium-sized enterprises (SMEs) went from 24 to 80 percent from 2015 to 2018.[11]

INCLUSIVE DEVELOPMENT

WOMEN IN LOW- AND MIDDLE-INCOME COUNTRIES SAY:





ECONOMIC POLICY

In the Republic of The Philippines, USAID supported the digital transformation of tax administration, which increased e-filing rates from less than eight percent in 2013 to nearly **80 percent** in 2019. This assistance helped the Government of The Philippines generate **$3.5 billion** in additional tax revenues in 2018.

The *USAID Digital Strategy* will help the Agency advance U.S. national security and economic prosperity. In support of the U.S. Government's goals to advance our national security and economic prosperity, USAID will work with governments and the private sector in the countries where we work to promote informed investments in the development of communications infrastructure and digital markets, because networks intrinsically present greater cybersecurity and supply-chain risks as they increase in scale. This is especially urgent as countries increase their Internet connectivity by shifting from 3G and 4G (third-/fourth-generation) to 5G (fifth-generation) communications networks.[20] Authoritarian governments' subsidies to their national champions or state-owned enterprises allows these firms to offer fiber-optic networks and network equipment, including technology used to monitor populations on a mass scale and to restrict citizens' access to information, on (often deceptively) favorable financial terms. Such malign practices enable authoritarian regimes to dominate the telecommunications industry and control digital tools that can increase censorship and repression—to the disadvantage of the United States, our allies, and our values, which include democracy, market economy, inclusion, rights, freedom, and accountability.

THE DIGITAL CONNECTIVITY AND CYBERSECURITY PARTNERSHIP (DCCP)

In support of the U.S. Government's cybersecurity priorities, Secretary of State Mike Pompeo launched the DCCP in July 2018, a whole-of-Government initiative to promote access to an open, interoperable, reliable, and secure Internet to counter authoritarian influences on communications infrastructure. The DCCP Interagency Working Group, which USAID and the U.S. Department of State co-chair, supports the development of open communications infrastructure through private-sector engagement; promotes transparent regulatory policies for free, competitive markets; and builds partners' cybersecurity capacities to address shared threats. DCCP will help the governments and the private sector in our partner countries realize the tremendous economic and social benefits of the digital economy, while creating new commercial opportunities for U.S. and local technology companies.

THE FOLLOWING ARE EXAMPLES OF HOW DIGITAL TECHNOLOGY CAN PROMOTE SELF-RELIANCE:

USE OF DIGITAL PAYMENTS SAVES THE MEXICAN GOVERMENT

$1.27 B

— EACH YEAR —

GOVERNMENT CAPACITY

The Better Than Cash Alliance reports that **the Mexican Government saves $1.27 billion each year** through the use of digital payments.[13]

CITIZEN CAPACITY

Thanks to digital tools like mobile money, communities have greater access to financial services and are more stable and self-reliant. In the Republic of Kenya, the mobile-money system M-PESA has lifted **194,000 households,** or two percent of Kenyan households, **out of poverty**.[14]

USE OF MOBILE MONEY SYSTEM IN KENYA LIFTED

194K

HOUSEHOLDS OUT OF POVERTY

CAPACITY OF THE ECONOMY

By increasing the adoption of mobile phones and fully enabling digital financial services, the Gross Domestic Product (GDP) of emerging economies could increase by more than **$3.5 trillion**, or six percent, by 2025.[15] E-commerce could **increase international trade by up to $2.1 trillion** by 2030.[16]

IN INDONESIA, VOLUNTEERS QUICKLY **BUILT A WEBSITE AND DIGITIZED VOTING TABULATIONS** TO MONITOR/TRACK CONTESTED ELECTION RESULT

CIVIL SOCIETY CAPACITY

Digital technology enables civil society to hold government and service-delivery providers accountable. Following the highly contested 2014 presidential election in the Republic of Indonesia, a group of volunteers quickly built a website and digitized voting tabulations, many of them handwritten, to enable better monitoring and tracking of the election results and address accusations of vote-rigging.[17]

REALIZING BENEFITS: DIGITAL AS AN ENABLING FORCE FOR DEVELOPMENT

Digital technology is transforming the way people gain access to information, goods, and services, which paves the way for improved health, well-being, and livelihoods. Digital technology has enhanced development outcomes and advanced national self-reliance in several ways.

MAKING DEVELOPMENT MORE EFFECTIVE AND EFFICIENT

- **Strengthening government service-delivery systems.** During the 2014–2016 Ebola crisis in West Africa, USAID funded a mobile phone-based system to disseminate information from the Liberian Ministry of Health to frontline health workers[21] and helped streamline salary payments to health workers by using mobile money.[22] In the Republic of Sierra Leone, digitized payments have contributed to saving an estimated 2,000 lives by ensuring community-response workers received their salaries.[23]
- **Saving time and cutting costs.** Digital technologies can improve delivery in a range of sectors, including health, humanitarian assistance, and education, to help allocate scarce resources where they are needed most. For example, using a smartphone-based application called eNutrition, health workers in the United Republic of Tanzania tailored treatment to children with severe acute malnutrition based on the child's past weight, past treatment, and guideline targets. Calculations and guidelines for each child's case helped virtually eliminate errors, which previously had been as high as 45 percent, within the first three months.[24]
- **Prioritizing investments through geospatial analysis.** In the Republic of Uganda, the creation and analysis of geospatial data supported USAID's Saving Mothers Giving Life program. In just eight weeks, USAID-trained university students digitally mapped the entire transportation network of three Districts in Western Uganda. These mapping data helped model physical accessibility to health care in the region and prioritize the allocation of new facilities. As a result of the improved allocation, maternal mortality in the area declined by at least 30 percent.[25] In the Philippines, USAID's Biodiversity and Watersheds Improved for Stronger Economy and Ecosystem Resilience (B+WISER) program harnessed technology alongside a geographic, data-driven approach to support the national government's effort to improve the management of natural and environmental resources and mitigate deforestation.[d, 26]

DRIVING ECONOMIC EMPOWERMENT, FINANCIAL INCLUSION, AND TRADE

- **IMPROVING RESILIENCE THROUGH DIGITAL FINANCIAL SERVICES.** Digital financial services can make transactions cheaper, more accessible, more secure, and more transparent, and help the poor weather financial shocks to lead more resilient lives.[27] Families who do not use M-Pesa in

d. The Government of the Philippines has adopted and scaled up the technology with its own resources.

Kenya—the largest mobile-money system in the world—suffer a seven-percent drop in consumption when hit with a negative income shock, while the consumption of families who use M-Pesa remains unaffected.[28]

- **Increasing economic activity and reducing barriers to international trade by using digital systems.** The Ethiopian Commodity Exchange (ECX) is an online platform that provides real-time prices on agricultural products over SMS, telephone hotlines, a website, and traditional media channels. It offers smallholder farmers a fair opportunity to participate in international markets. Improved knowledge about coffee prices reduced traders' margins by almost half, which meant farmers saw increased revenue.[29] Similarly, the USAID-funded Regional Trade and Market Alliance (RTMA) worked with customs and other border-control agencies in Central America to reengineer trade processes to eliminate downtime and improve coordination. This reengineering process was critical to support the implementation of radio-frequency-identification (RFID) tags at two main border crossings.[30]

SUPPORTING ACCOUNTABILITY AND TRANSPARENCY IN GOVERNANCE

- **Reducing waste and fraud in the distribution of public benefits.** A trial of smartcard-enabled benefit payments in the Republic of India found that the leakage of funds decreased by 40 percent, and demands for bribes were 47 percent lower for card-users than for those in the control group.[32] Overall, the reductions in leakage for the program were an estimated $38.7 million per year—nine times the cost of implementation.[33]
- **Strengthening land-tenure systems.** USAID's Mobile Applications to Secure Tenure (MAST) initiative has combined innovative technology tools with inclusive, community-based methods to document and formalize the use of land and empower youth.[34] MAST maps and documents land tenure in a number of countries, trains local youth to collect and validate land data as empowered "intermediaries," and is a part of ongoing randomized control trials in the Republic of Zambia and Tanzania. The source code for MAST's mobile applications and back-end database systems are free and open-source, so the technology is available for the broadest possible adaptation and use.

STRENGTHENING THE ECOSYSTEM FOR DIGITAL PAYMENTS IN THE PHILIPPINES

USAID worked with the *Bangko Sentral ng Pilipinas* (Central Bank of the Republic of the Philippines) and the country's financial sector to improve the efficiency, reliability, safety, and interoperability of the system for retail payments and strengthen the national ecosystem for digital payments. This support has played an important role in the country's journey to a cash-lite economy. A recent study by the Better Than Cash Alliance found that the Philippines has made significant progress, as the share of digital payments increased from one percent in 2013 to 11 percent in 2018. This translates to a 20-fold increase in the volume of transactions, from a monthly average of 25 million in 2013 to 490 million in 2018. In terms of value, digital-payment transactions quadrupled from a monthly average of $6 billion in 2013 to $24 billion in 2018. [31]

Photo: B+Wiser

Photo: USAID

CREATING A PLATFORM FOR INNOVATION AND INCLUSION

- **Providing the economic infrastructure for innovative businesses to offer services to underserved communities.** The combination of inexpensive solar panels and mobile-money platforms is enabling pay-as-you go business models for off-grid energy.[35] One company, M-Kopa, powers 300,000 homes in Kenya, Tanzania, and Uganda. This technology not only delivers electricity, but also broadens the reach of digital services for savings, credit, and payments.[36]
- **Creating new opportunities for persons with disabilities.** Digital reading platforms allow for accessible audio and visual supplements. Since 2011, the USAID-funded All Children Reading: A Grand Challenge for Development has used open competitions to create and scale technological solutions to improve the literacy skills of early-grade learners in developing countries.[37] Its Sign On for Literacy prize targets the estimated 25 million deaf children around the world who lack access to education.[38] In 2019, the Kenya-based prize finalist, *eKitabu*, translated Kenyan Sign Language (KSL) into a visual glossary, produced KSL videos for integration into accessible books, and created visual storybooks to introduce KSL to early-grade readers.
- **Empowering youth to drive change in their communities.** Young entrepreneurs and youth leaders are using digital innovation to help solve development challenges at home and abroad. Across the globe, more than 5,000 student mappers in more than 150 university chapters are generating open-source geospatial data for humanitarian and development use through YouthMappers. The USAID-funded program creates geospatial data for our programs that need them most, while strategically empowering youth to define their world by mapping it.

DELIVERING INFORMATION AND ACTIONABLE INSIGHTS

- **Enabling access to data.** In the Islamic Republic of Pakistan, a country plagued by chronic electricity shortages, USAID installed 9,000 smart meters, which used the country's mobile network to relay electricity-usage data back to the utility's headquarters every 15 seconds. With increased access to data, the distribution company provided better electricity service to more than 120 million people, increased its revenue by $62 million, and reduced losses to the economy by an estimated $180 million.[39]
- **Aiding in the formulation of strategies and the design and implementation of projects and activities by using powerful emerging approaches like machine learning (ML) and artificial intelligence (AI).** In the Republic of Colombia, efforts to increase the crop yields of smallholder farmers have used ML approaches to make recommendations based on historical yield data and updated climate models.[40] For efforts to expand access to electricity, computer vision algorithms can map electric grids by picking out electric towers and power lines from satellite images.[41] Similar approaches can map road networks to identify underserved regions.[42]

ACCOUNTING FOR RISKS: A NEED FOR SAFEGUARDING IN DIGITAL ECOSYSTEMS

The emergence and adoption of digital technology leads to a multitude of benefits, but it also introduces risks. In an increasingly digital world, communities can find themselves socially or economically marginalized if they choose, for reasons of tradition or cultural preservation, not to opt in to the changing society around them. For those who do opt in, online forms of harassment can exacerbate existing inequalities and conflict dynamics. If left unaddressed, these vulnerabilities can lead to extensive political, social, and economic damage and, ultimately, derail a country's Journey to Self-Reliance.

THE PERSISTENT DIGITAL DIVIDE

Multiple, stubborn digital divides exist between those who have access to digital products and services and those who do not—between urban and rural communities, indigenous and non-indigenous populations, young and old, male and female, and persons with or without disabilities. These divides are not isolated to the poorest countries, and frequently persist even when national-level access improves. Closing these divides wherever they exist is key to achieving USAID's goals.

Private-sector investments in digital infrastructure often exclude areas and populations for which the business case cannot be readily justified or the risk is too burdensome. Marginalized populations might require public investment to aggregate demand, lower the cost of market entry, and extend connectivity to previously unreached areas—a role USAID is well-positioned to play through the use of our funds, flexible authorities, partnerships with technology companies, and technical expertise to mitigate risk and to "crowd in" public and private resources.

WOMENCONNECT CHALLENGE: BRIDGING THE GENDER DIGITAL DIVIDE

Around 1.7 billion women in low- and middle-income countries do not own mobile phones, and the gap in using the Internet between men and women has grown in recent years.[43] In 2018, USAID launched the WomenConnect Challenge to address this gap. With a goal to enable women's and girls' access to, and use of, digital technologies, the first call for solutions brought in more than 530 ideas from 89 countries; USAID selected nine organizations to receive $100,000 awards. In the Republic of Mozambique, the development-finance institution GAPI is lowering barriers to women's mobile access by providing offline Internet browsing, rent-to-own options, and tailored training in micro-entrepreneurship for women by region. Another awardee, AFCHIX, creates opportunities for rural women in the Republics of Kenya, Namibia, and Sénégal and the Kingdom of Morocco to become network engineers and build their own community networks or Internet services. The entrepreneurial and empowerment program helps women establish their own companies, provides important community services, and positions these individuals as role models.

Photo: Securing Water for Food

At the same time, emerging technologies can pose new challenges to inclusion. Because AI-enabled tools often rely on machine-learning algorithms that use historical data to detect patterns and make predictions, they can reproduce or amplify biases that might be present in those data.[44] The February 2019 *Executive Order on Maintaining American Leadership in Artificial Intelligence* states, "The United States must foster public trust and confidence in Artificial Intelligence (AI) technologies and protect civil liberties, privacy, and American values in their application."[45] Similarly, the Principles on Artificial Intelligence endorsed by the Organisation for Economic Cooperation and Development (OECD), adopted by 42 countries including the United States, stress the importance of human rights and diversity, as well as building safeguards and accountability when designing systems that rely on AI.[46] We must balance the adoption of new technologies with a measured assessment of their ethical, fair, and inclusive use in development.[47]

Similarly, one billion people in the world, mostly from developing countries, lack appropriate means of identification (ID),[48] which creates a divide between those who can prove their identity and those who cannot, and excludes large groups from civic participation and access to public services. As we move into a world with increasingly present digital ID systems, we run the risk of further excluding people if these systems are not carefully designed and deployed. Host-country governments or USAID partners must not adopt tools that exacerbate existing inequities, which would harm already-marginalized people and undermine trust in the organizations that deploy these tools, and instead ensure that digital systems and tools equitably benefit affected populations.

THREATS TO INTERNET FREEDOM AND HUMAN RIGHTS

As articulated in the *U.S. National Cyber Strategy*, the United States is committed to ensuring the protection and promotion of an open, interoperable, reliable, and secure Internet that represents and safeguards the online exercise of human rights and fundamental freedoms—such as freedom of expression, association, religion, and peaceful assembly.[49] For many people across the globe, reality does not reflect this ideal state. According to Freedom House, the global state of Internet freedom in 2019 declined for the ninth consecutive year, which presents challenges to democracy worldwide.[50] These threats are not new, but they are taking on new forms in a digital age.

One major threat to digital ecosystems is what some have termed *digital authoritarianism*, in which a repressive government controls the Internet and uses censorship, surveillance, and data/media laws or regulations to restrict or repress freedom of expression, association, religion, and peaceful assembly at scale.[51] Authoritarian governments also threaten freedom of expression and movement by encouraging the design and use of online systems for surveillance and social control—for example, by promoting and adopting digital facial-recognition systems that enable the passive identification of citizens and visitors.[52] The rise of digital authoritarianism is especially concerning during times of complex emergencies, when lack of access to information can hinder the delivery of humanitarian assistance. Consistent with our Clear Choice Framework and Development Framework for Countering Malign Kremlin Influence, USAID will continue to champion Internet freedom by driving multi-stakeholder conversations related to Internet governance and supporting commitment to Internet freedom and human rights around the globe.

USAID'S PARTNER ORGANIZATIONS COUNTER ONLINE HATE SPEECH

Experience from USAID's programs suggests that media literacy alone is not sufficient to address the volume of hate speech circulated on online platforms. Beginning in 2015, USAID has funded partners in Southeast Asia to reduce the impact of hate speech on underlying community tensions, which can ultimately lead to riots, forcible displacement, and death. USAID's partner organizations produce and distribute messages to raise awareness about hate speech, both locally and with relevant authorities on global platforms. Our implementers also work closely with local leaders to build their awareness of hate speech and tailor online and offline interventions to community dynamics. USAID's experience indicates no one is better-positioned than local organizations to demand independent audits publicly and apply the pressure necessary to hold platforms accountable to the ideals of transparency and accuracy of information.

HATE SPEECH AND VIOLENT EXTREMISM ONLINE

The same digital tools that allow governments, businesses, and civil society to connect efficiently and at scale enable individuals and organizations with hateful or violent ideologies to reach potential followers and recruits. The United States is clear in our commitment to exposing violent extremism online and working with local partners and technology platforms to communicate alternatives.[53] This includes implementing programs to counter violent extremism that are focused, tailored, and measurable, as articulated in the USAID Policy on Countering Violent Extremism in Development,[54] and an explicit call to understand how to counter violent extremism and hate speech through digital platforms.[55]

THE INFLUENCE OF ONLINE MISINFORMATION AND DISINFORMATION ON DEMOCRATIC PROCESSES

Recent events have shown the ability of misinformation and disinformation campaigns to sow distrust and undermine democracy.[56] Particularly during periods of political transition, *misinformation* can create as much harm as *disinformation*.[e]

Furthermore, the push to correct misinformation is often a thinly veiled cover for the disinformation efforts of authoritarian or would-be authoritarian governments. As USAID-funded programs work to increase the digital influence of local partners, the Agency must prepare staff and partners to anticipate and respond to coordinated disinformation campaigns against their work.

Both state and non-state actors are adopting efforts to pollute the information available on the Internet. In addition to traditional methods (for example, using fake accounts and websites to spread divisive messages), these actors can buy followers, employ networks of automated bots, manipulate search engines, and adopt other tactics used by counterfeiters to confuse and persuade. Furthermore, technologies that enable "deep fakes" not only can deepen societal divisions, shape public perceptions, and create "false facts" and "truths," but also lead to actual conflict and lend significant advantages to violent non-state adversaries.[57] USAID and our interagency U.S. Government partners are committed to coordinating efforts to counter misinformation and disinformation generated by state and non-state actors[58] and funding supply- and demand-side interventions to reach those ends.[59]

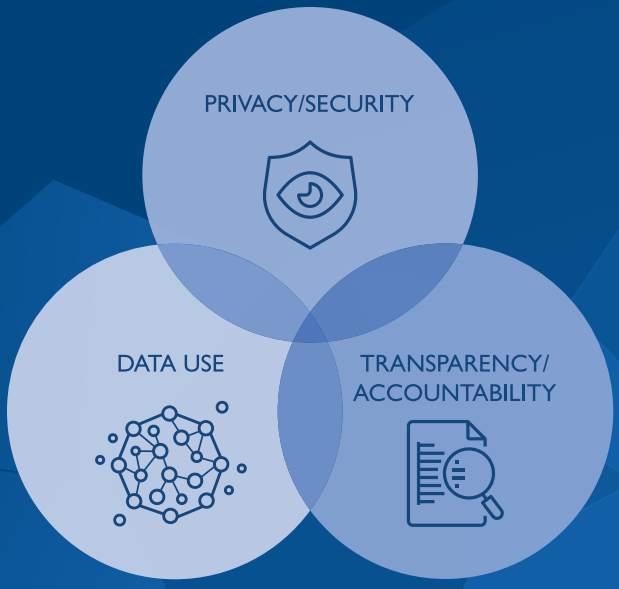
e. Misinformation refers to factually inaccurate content distributed regardless of whether there is an intent to deceive, while disinformation refers to factually inaccurate content distributed intentionally for political, economic, or other gain.

NEW RISKS TO PRIVACY AND SECURITY

Digital-information systems increase the availability of data and the ease of its storage and transfer, which breaks down the "transaction costs" that have historically served as *de facto* protections of data privacy.[60] This increased ease of access compels us to reassess how we conceptualize privacy protections in a digital age. As many communities USAID and its partners serve come online for the first time, we must provide resources to, and help develop the capabilities of, partners to enhance the safeguarding of personally identifiable information (PII) and other sensitive information. Even datasets scrubbed of PII might, when merged and analyzed together, expose individuals to reidentification.[61] Additionally, it is now possible to discern sensitive information, such as someone's political leanings or sexual orientation, simply through tracking his or her online behavior or mobile devices.[62] As it becomes easier to create a "mosaic" of someone's identity from disparate pieces of digital data, norms and definitions of privacy are proving anything but static.

Privacy risks are particularly acute in humanitarian crises, where displacement and uncertainty increase vulnerability, and recipients of aid can feel pressured to share personal data in exchange for urgent assistance. Threats to privacy can come from nefarious actors who engage in "doxing"[63] and digital intimidation, but they can also come from unwittingly harmful actors—groups who might not have proper security protocols in place, for example. Conversations related to the responsible protection and use of data cannot be separated from conversations related to the benefits of open data for transparency and the flow of information for international trade.

Cybersecurity risks can jeopardize a country's infrastructure and services at a national level. Ukraine experienced the first known cyber attack on a power grid in December 2015, when 225,000 people lost power.[64] The country experienced another cyberattack in June 2017, which affected computer systems, automated teller machines (ATMs), an airport, and even the radiation-monitoring system at the Chernobyl nuclear plant, before



CONSIDERATIONS FOR USING DATA RESPONSIBLY AT USAID

The responsible use of data requires balancing three key factors, which can sometimes be in tension, as detailed in *Considerations for Using Data Responsibly* at USAID. The **use of data** helps maximize the effectiveness and efficiency of our programs. **Privacy and security** help avoid unintentional harm to both the subjects of data (people described by data) and the stewards of data (organizations that collect, store, and analyze data). **Transparency and accountability** require sharing data as broadly as possible with host-country governments, U.S. taxpayers, and the people directly affected by our work. Effectively navigating these complex issues is critical to maintaining trust in digital systems and creating opportunities for beneficial innovation.

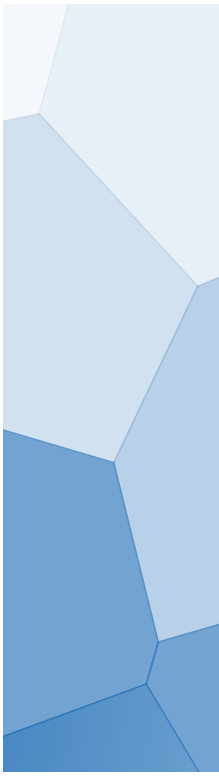
spreading worldwide.[65] In 2016, hackers stole $81 million from Bangladesh's central bank by infiltrating its computer systems and using the SWIFT payment network to initiate the transfer.[66]

These examples demonstrate the potential economic impact and damage to trust in public institutions because of cybersecurity failures. Much like terrorist attacks, high-profile cyber attacks can undermine the legitimacy of governments by highlighting their inability to protect their citizens from harm.

In a digital ecosystem, the frontlines of defense against cyber threats and data breaches (and often the most vulnerable points) are a country's workforce: engineers, bank managers, government officials, or development practitioners. Because of the critical role the workforce plays in maintaining cybersecurity and recovering from cyber attacks, it needs adequate digital skills and training; the right processes, policies, or systems; and an appropriately protective legal and regulatory environment.

In support of the Journey to Self-Reliance, USAID, in partnership with other U.S. Government Agencies and Departments, plays an important role in building the cyber capacity of partner-country governments and industry; promoting regulations and laws that protect privacy and freedom of expression; uniting industry, government, and educational institutions to develop a highly qualified cybersecurity workforce; and increasing the digital literacy and digital security of citizens.

The 2018–2022 *State-USAID Joint Strategic Plan* mandates international cooperation to "secure an open, interoperable, reliable, and stable cyberspace and strengthen the capacity of the United States and partner nations to detect, deter, rapidly mitigate, and respond to international cyber threats and incidents."[67]



ACCOUNTING FOR PROMISE AND PERIL IN A DIGITAL AGE

Every country has its own trajectory: some societies are rapidly embracing digital change, while others are just beginning the process. In spite of differences in maturity of digital ecosystems, digital technology presents a range of benefits and risks for which USAID's programs universally should account.

TABLE 1: ILLUSTRATIVE BENEFITS AND RISKS THAT DIGITAL TECHNOLOGY MAY INTRODUCE ACROSS SECTORS

ILLUSTRATIVE BUILDING BLOCKS OF SELF-RELIANCE	ILLUSTRATIVE BENEFITS DIGITAL CAN PROVIDE	ILLUSTRATIVE RISKS DIGITAL CAN POSE IF UNACCOUNTED FOR	ILLUSTRATIVE ROLES FOR USAID AND PARTNERS
SERVICE-DELIVERY 	Networked digital information systems allow people, including the underserved or unserved, to more **easily access information**—for instance, financial services, advice on health, market prices, climate and weather information, job openings, or natural-resource management and agricultural best practices. Privacy-protecting approaches can build trust and safeguard individual rights.	Technology companies and authoritarian governments have increasing access to intimate details of people's lives because of **inadequate privacy protections**.[68]	Understand the local digital ecosystem and support the digital strategies of local governments; build the digital literacy of individuals. Support the implementation of effective digital privacy and cybersecurity best practices to strike a balance between driving increased use of open data-sharing and safeguarding personal information.
ECONOMIC GROWTH 	Digital connectivity correlates with higher rates of **economic growth**, and accounts for roughly 14 percent of growth in low- and middle-income countries from 1995-2014.[69] Digital financial services, such as mobile payments, digital banking, and new lending products, have shown a measurable effect in **lifting people out of poverty**.[70]	A persistent **digital divide can undermine inclusive economic growth** by excluding marginalized communities or accelerating market concentration and economic inequality. Likewise, under certain conditions, firms that offer digital services built on network effects, large flows of data, and economies of scale might use those drivers to undermine competition, innovation, and consumer protection.[71]	Work with local stakeholders, including the business community, to identify drivers of exclusion, whether at the policy, infrastructure, services, or end-user level; and identify factors that constrain the private sector from involvement and investment in addressing drivers of exclusion. Facilitate the development of an enabling environment and marketplace of firms and entrepreneurs that promote competition, responsible conduct, and human-centered approaches to innovation.
DEMOCRACY, HUMAN RIGHTS, AND GOVERNANCE 	Digital technology has the potential to democratize the flow of data and **enhance the ability of governments to respond to citizens' needs efficiently and effectively.** Use of online platforms and partnerships like the Open Government Partnership (OGP) and International Aid Transparency Initiative (IATI), can help to hold governments accountable to their citizens through transparency reforms.	Both state and non-state actors have sought to **undermine democracy** and poison online discussions and social-media platforms through sophisticated deception and disinformation.[72] Authoritarian regimes use digital technology to monitor, harass, and threaten ethnic and religious minorities and individuals and organizations that seek transparency and accountability or challenge a government's narrative.	Support human-rights organizations and independent media through access to secure data and communications platforms, digital-literacy programs, equipment, and state-of-the-art technical assistance in protecting themselves, their families, and their work from cyber attacks and disinformation.

Photos, top to bottom: David Rochkind, USAID; Brooke Patterson, USAID; Nick Cunard, Department for International Development

ILLUSTRATIVE BUILDING BLOCKS OF SELF-RELIANCE	ILLUSTRATIVE BENEFITS DIGITAL CAN PROVIDE	ILLUSTRATIVE RISKS DIGITAL CAN POSE IF UNACCOUNTED FOR	ILLUSTRATIVE ROLES FOR USAID AND PARTNERS
HUMANITARIAN ASSISTANCE 	Digital data sources, such as social media[73] and mobile phone records[74] can be a valuable source of **real-time information** as a crisis unfolds. In humanitarian crises, mobile money transfers can sometimes be faster, more secure, and more transparent than distributing cash.[75]	Humanitarian agencies in Yemen used biometric registration of aid recipients to support monitoring and accountability. However, **disagreements over data control and ownership** led to a suspension of food aid to more than 12 million people.[76]	Explore innovative methods to target and deliver humanitarian assistance more effectively and responsibly using digital tools. Promote responsible use of social media and outreach to affected communities and diaspora. Promote discussion with international stakeholders on how to best protect the privacy and identity of vulnerable populations, including internally displaced people and refugees.
NATIONAL SECURITY 	Deployment of digital infrastructure that **prioritizes national security,** while also promoting U.S. values of an open, secure, reliable, and interoperable Internet, free expression, and free markets, will determine economic growth and security at home and for our partners and allies.[77]	**Cybersecurity breaches** can destabilize critical networks and sectors, **disrupting a country's Journey to Self-Reliance.** Violent extremists have employed digital applications—from social media and file-sharing to cryptocurrencies—to radicalize and recruit, as well as to **promote, coordinate, and fund acts of terror**.[78]	Strengthen the capacity of partner governments to secure their data systems against attacks and make informed policy and infrastructure choices. Work with the private sector in key industries (e.g., finance, energy, health) to improve capacity to strengthen cybersecurity and preserve trust in digitally-enabled services and counter cyber-related threats to economic growth.
PRIVATE SECTOR AND TRADE 	**Digitally-enabled trade**, such as through e-commerce platforms or more-efficient customs processes, is one of the fastest-growing areas in the global economy.[79] Digital technology can reduce the cost and time needed for common business operations.	Many governments choose to adopt **protectionist digital trade policies** (e.g., data-localization, forced transfer of technology, the use of standards that favor domestic industry, and failure to enforce intellectual-property rights). These policies, when combined with **inefficient cross-border trade processes and paper-based systems**, impair trade that contributes to economic growth.	Build private-sector capacity to adopt digital-first business models and comply with globally recognized standards for the conduct of cross-border trade through e-commerce. Work with governments to apply digital tools to streamline regulations and processes that facilitate trade. Strengthen partners' capacities to participate in the development of international regulation related to the digital economy, and to comply with future commitments.
ACCESS TO INFORMATION 	Digital technologies can increase access to information in a way that can yield powerful insights for citizens and government stakeholders alike.	Digital technology can create echo chambers in which dissenting views are marginalized, as well as perpetuate rumors or other unintentional falsehoods.	Build capacity of local media to provide fact-based reporting online and counter disinformation efforts. Build the digital literacy of all communities.

Photos, top to bottom: Jack Gordon, USAID; Arne Hoel, World Bank; USAID; R. Farrell, ITU

WHY DIGITAL REQUIRES US TO REFINE OUR APPROACH TO DEVELOPMENT

USAID needs to revisit how we respond to development challenges in the face of dynamic and rapidly growing digital ecosystems. Both the rate of change and complexity in the evolution of digital ecosystems are unprecedented. Yet institutional structures and processes of both governments and development organizations have been slow to adapt, and often struggle to keep up. As a result, **institutions often lack the capacity to design, implement, and monitor projects and activities effectively that engage with, or use, the digital ecosystem**. The proliferation and adoption of emerging technologies will amplify these challenges, which frequently outpace our ability to explore appropriate safeguards and enact right-sized policies that promote healthy innovation while protecting against misuse or harm.

The staff of both USAID and our partners must receive training to understand the appropriate use of digital tools for development programming, and the importance of coordinating with the U.S. Government interagency to assess a recipient nation's economic and security posture to use and manage digital solutions appropriately. Otherwise, digitally enabled programming will be less effective, and our efforts to reinforce digital ecosystems will be inadequate.

Even if the staff and personnel of our international partners have the skills and capacity to use technology and data to redesign development projects and activities, the norms and incentives that shape their decisions and actions often make it difficult for them to do so. For example, because development and humanitarian-assistance projects and activities traditionally depend on funding tied to a sector, they often only invest in a sliver of the needed digital infrastructure, if at all—though that need not be the case.[80] An inventory-management system might work the same way, whether it tracks school books or medications delivered or agricultural inputs. But rather than investing in one system, donors will often (wastefully) build separate systems, because different teams manage the projects.

Even when USAID and our partners create digital systems separately, we can, and should, build them to interoperate, with the ability for data-sharing and communication where appropriate. Lack of interoperability undermines sustainability and growth, burdens partners, and can stifle competition. For example, the lack of interoperable health-data systems during the 2014–2016 epidemic of Ebola in West Africa forced decision-makers to compare information manually from separate databases, which slowed the response.[81] In other countries, lack of interoperability has limited the scale of digital payments.[82]

If our digital programmatic investments are siloed or unsustainable, we risk undermining the digital ecosystems we should be trying to build, and ultimately the people and countries with whom we work. Not only is this an inefficient use of taxpayer funds, it will ultimately obstruct longer-term efforts toward self-reliance. We must continue to strive toward a values-driven, principled approach to digital development that encourages the responsible, equitable, and sustainable use of digital technology in development and humanitarian-assistance programming.

THE PRINCIPLES FOR DIGITAL DEVELOPMENT

In 2013, USAID, along with a group of donor and multilateral organizations, co-drafted the Principles for Digital Development,[83] nine areas of best practice in the application of digital technologies to global development. The Principles articulate guidance to help address challenges such as pilots that fail to scale, or do not involve sufficient engagement with the target users. USAID became the first organization to endorse the Principles officially in 2015, and the Agency continues to promote them today.[84] More than 200 organizations have now endorsed the Principles, including the Bill and Melinda Gates Foundation, the World Bank Group, the Swedish International Development Cooperation Agency (Sida), the German Society for International Cooperation (GIZ), and the Department for International Development (DFID) of the United Kingdom.

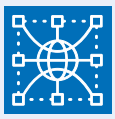
GUIDING PRACTICES

Before we describe what USAID will aim to accomplish under this *Strategy* and the types of interventions we will use to realize those results, we must first reinforce our commitment to values-driven programming. Throughout our work, USAID's approach will embody a set of guiding practices that will not only help our digitally supported programming efforts stay on-target and be most effective, but also provide guidance on when and how to engage in a country-level digital ecosystem, consistent with U.S. values and in a way that protects civil liberties and preserves human rights.

Embed U.S. Values, Civil Liberties, and Universal Human Rights. "[The U.S. Government's] approach to cyberspace is anchored by enduring American values, such as the belief in the power of individual liberty, free expression, free markets, and privacy."[85] Because authoritarians can use digital technologies as tools of surveillance, discrimination, or social control, USAID will take care to support only digital systems and policies that promote the freedoms of expression and action, equal opportunity, and self-determination, values and rights enshrined in the U.S. Constitution's Bill of Rights[86] and in the Universal Declaration of Human Rights.[87]

Collaborate with the Private Sector. In alignment with the Agency's *Private-Sector Engagement Policy*, USAID will work with the private sector to build long-lasting, equitable digital infrastructure while lowering risk for investors. USAID will also promote innovations led by the private sector that reduce costs for end-users and support access by local technology entrepreneurs to regional and global markets.

Foster the Adoption of Globally Recognized Standards. USAID will work with stakeholders to foster their alignment with, and application of, globally recognized standards and best practices related to the digital ecosystem (for example, on interoperability, competition, and cross-border flows of data[f]). Such standards and practices can increase investment in, and the growth of, local digital ecosystems and improve the quality of services available to communities.



Support In-Country Alignment. USAID will strive to align with, and strengthen, the national or sectoral digital priorities of partner-country governments in ways consistent with U.S. law and best practices.[g] In circumstances in which doing so is practical, and appropriate privacy and cybersecurity protections are in place, Missions should encourage data systems funded by USAID to link with national systems, and the Agency should seek opportunities to coordinate our investments with those of other donors and private firms. USAID must oppose digital integration in instances in which digital technology and data become unwitting tools of repression, and our Missions must be attuned to the influence of malign actors on the policies and procurements of national governments.[88] Given the important role of regional alliances and regional integration, USAID will also collaborate to shape conducive regional environments for digital ecosystems, knit together by cross-border flows of data, the harmonization of policy frameworks, and use of globally recognized standards.

Strengthen Local Systems, Institutions, and Capacity. In line with the *USAID Policy Framework*, which highlights sustaining results as a key principle that underpins our approach to fostering self-reliance, USAID recognizes that local systems and institutions help to deliver lasting results. USAID will strengthen local workforce-development efforts, promote digital literacy and hygiene, improve access to digital tools and services, and reinforce privacy protections.[89]

f. Given the consensus view that data flows present singular challenges and opportunities, multiple organizations have developed principles, guidelines, frameworks, or white papers to inform policymakers and other stakeholders on how to navigate this environment safely. See, for example, CSIS, "Data Governance Principles for the Global Digital Economy," (2019), https://www.csis.org/analysis/data-governance-principles-global-digital-economy; CIGI, "Data Is Different: Why the World Needs a New Approach to Governing Cross-border Data Flows," (2018), https://www.cigionline.org/publications/data-different-why-world-needs-new-approach-governing-cross-border-data-flows; USTR, "The Digital 2 Dozen," (n/d), https://ustr.gov/trade-agreements/free-trade-agreements/trans-pacific-partnership/tpp-reports/digital-2-dozen.

g. See, for example, the Principles of Donor Alignment for Digital Health, https://digitalinvestmentprinciples.org/

Promote Inclusive Digital Development. USAID recognizes that digital ecosystems are stronger and more sustainable when they work for everyone. Underlying our efforts to strengthen digital ecosystems is a commitment to understand and address the root causes of exclusion or under-participation by particular groups. USAID will invest in improving digital ecosystems in ways that meet the needs of all segments of society, in particular traditionally underserved groups such as the poor, women, youth, ethnic and religious minorities, and people with disabilities.

Meet Communities Where They Are along the Journey to Self-Reliance. Rather than imposing an inflexible set of global goals, USAID's aim is to help communities in each partner country progress on their unique Journey to Self-Reliance.[90] This means USAID will demonstrate sensitivity to local political, economic, and social context and adapt engagements based on the opportunities and risks presented by any given digital ecosystem. As capacity and commitment reach more advanced levels, we will consider adjusting the nature of our partnerships with governments, civil society, the private sector, and local communities in host countries on issues of digital development.

Strengthen Cybersecurity. In alignment with U.S. Government cyber policy, USAID will promote an open, interoperable, reliable, and secure Internet that strengthens and extends U.S. values and protects and promotes cybersecurity for our beneficiaries. This will entail supporting the adoption of policies that espouse global cybersecurity best practices; facilitating the protection of Internet freedom; promoting the principles of the free flow of data and the protection of intellectual property; and prioritizing the development of a cyber-ready workforce in the countries in which USAID works.

Protect Privacy and Use Data Responsibly. USAID will encourage the governments, civil society, and the private sector in our partner countries and local stakeholders to protect and use data responsibly, by consistently striving for all data assets to have appropriate safeguards and to be high-quality, standardized, and machine-readable. As our programs rely increasingly on digital tools and the personal data they generate, USAID will elevate the need for the privacy and protection of programmatic data. We will work with our partners and national governments to navigate the complex ethical and legal issues that will arise.

Take Calculated Risks and Embrace Innovation. A key element of our ability to sustain results is to take balanced risks and manage them comprehensively. USAID's Risk-Appetite Statement calls on the Agency to be bold, to work with different partners, and to innovate around novel procurement systems;[91] this is particularly relevant to investments in digital ecosystems. The rapidly evolving digital landscape requires a high appetite for risk when "harnessing new technologies and innovations" in USAID's development and humanitarian assistance,[92] with a commitment to understand and minimize avoidable risks as we promote innovation. Simultaneously, the rights, protections, and safety of our beneficiaries and recipients must always be our foremost priority, so our appetite for risk is low when the security of information, such as PII, is threatened.[93]

WHEN *NOT* TO GO DIGITAL

While technology can improve many development and humanitarian projects, it is not a panacea. For example, in some cases (such as relief for natural disasters), damage to digital infrastructure can disrupt connectivity and make low-tech tools more reliable. Data about some extremely vulnerable populations could be too sensitive to store digitally, or even to collect, regardless of the security measures employed. Deployment of some digital tools also might be unwise in countries with repressive and digitally sophisticated governments that can subvert or disrupt systems more easily than our partners can protect them. These and other "non-permissive digital environments" require careful consideration of when, and whether, to use digital methods.

STRATEGIC FRAMEWORK: FOSTERING AN INCLUSIVE DIGITAL FUTURE

By working to pioneer new approaches and learn from both success and failure, USAID can help governments, civil society, the private sector, and local communities in our partner countries maximize the potential of the digital transformation and minimize its risks. USAID itself will continue to pursue similar transformation, by leveraging digital technology to further programmatic gains. We will continue to advance the use of digital technology to address the operational needs of the Agency, as governed by our *Information Technology Strategic Plan* (ITSP). Collectively, these activities will enable us to achieve the *Strategy*'s goal.

GOAL OF THE *DIGITAL STRATEGY*: To achieve and sustain open, secure, and inclusive digital ecosystems that contribute to measurable development and humanitarian-assistance outcomes and increase self-reliance in our partner countries.

USAID is but one actor among many that influence the global digital ecosystem; achieving this goal requires a multi-faceted, systems-oriented approach.[94] Two core, interrelated issues—*how* we use digital technology and the context in which we use it—are key to achieving this *Digital Strategy*'s two objectives:

- **Strategic Objective 1: Improve measurable development and humanitarian-assistance outcomes through the responsible use of digital technology in USAID's programming; and**
- **Strategic Objective 2: Strengthen the openness, security, and inclusiveness of national digital ecosystems.**

We recognize that how USAID works with stakeholders across the ecosystem can shape the evolution of a stronger, more open, and more inclusive digital future. Because of this, our strategic framework not only rests on the work USAID will carry out with our implementing partners, but also highlights the critical need for USAID to work in partnership with civil society, governments, the private sector, and other development actors as we aim for inclusive, sustainable growth of the global digital ecosystem.

In keeping with a systems-oriented approach, the Agency will achieve the Strategic Objectives of this *Strategy* through a set of mutually reinforcing Intermediate Results (IRs) that align with unique stakeholder roles, detailed both below and in Annex I. Many activities will lead to gains under multiple IRs. Illustrative targets appear following the Results Framework.

STRATEGIC OBJECTIVE 1

STRATEGIC OBJECTIVE 1: Improve measurable development and humanitarian-assistance outcomes through the responsible use of digital technology in USAID's programming

RATIONALE

The rapid evolution of digital ecosystems presents USAID with opportunities to leverage digital technology, and the data this technology produces, in our programming. The effective and responsible use of digital technology requires strategic planning, analysis of the implications that the digital age poses for key development challenges, and sustained engagement with a broad cross-section of stakeholders. USAID will position itself to make responsible programming decisions that, in turn, promote the sustainable, healthy growth of national digital ecosystems.

USAID has already begun to systematize digital approaches within Agency-funded projects and activities. These include guidance for electronic payments under USAID's awards,[95] updates to operational policy that promote a systematic method for collecting geolocation data,[96] a Self-Reliance metric for the Adoption of Information and Communications Technology (ICT) and other secondary data and analyses, and USAID's leadership in the co-creation of the Principles for Digital Development. To maximize the impact of taxpayer dollars, USAID will strive to further optimize our policies and procurement processes for the digital age, so that USAID-funded programming uses systems designed for interoperability, reusability, and sustainability across sectors.

MEASURING DIGITAL DIMENSIONS OF THE JOURNEY TO SELF-RELIANCE

As the Agency charts countries' economic capacities through relevant metrics of self-reliance, the ICT Adoption metric will help USAID's OUs recognize strengths, weaknesses, challenges, and opportunities related to the penetration of ICT in their host countries. The ICT Adoption indicator is a key measure of economic capacity and, when combined with secondary data and Mission-level analyses, can serve as an entry point to understand the adoption and integration of ICT.

USAID also has built the capacity of our staff to use digital technology in USAID's programming effectively. Since 2010, the U.S. Global Development Lab (Lab) has trained more than 2,300 USAID staff and partners, and has conducted more than 705 engagements with 80 USAID Operating Units (*e.g.*, direct technical assistance, strategic consultations, and advanced data and geographic analysis). The Lab also supports a network of Mission-based Digital Development Advisors and Specialists in Geographic Information Systems (GIS). Similarly, the USAID Data-Services team in the Office of the Chief Information Officer in the Bureau for Management (M/CIO) provides leadership on Agency-wide data policy, standards, and usage across the full data lifecycle. The team offers a broad portfolio of data analytics, curation, visualization, risk analysis and mitigation, machine-learning, and data-literacy services designed to promote the usage of evidence in support of USAID's mission. Digital expertise, technical assistance, and trainings like those offered by the Lab and M/CIO, as well as the U.S. Government interagency, will extend to the whole Agency; we must continue to equip our staff with modern digital tools for development and enable them to cultivate the necessary project-management skills to design and oversee programming in a digital age.

STRATEGIC OBJECTIVE 2

STRATEGIC OBJECTIVE 2: Strengthen the openness, inclusiveness, and security of country digital ecosystems

RATIONALE

USAID remains committed to investing in programming that strengthens the critical components that enable an open, inclusive, and secure digital ecosystem to flourish: sound enabling environment and policy commitment; robust and resilient digital infrastructure; capable digital service-providers and workforce (*e.g.*, both public and private institutions); and empowered end-users of digitally enabled services. This programming will enable the digital ecosystem to be a more equitable, participatory, and effective conduit for achieving measurable, sustainable development outcomes. USAID will likewise work to clarify how we can support ecosystem-oriented programming through the appropriate use of legislatively directed or sector-specific funding.

USAID has extensive experience with programming that strengthens the key components of digital ecosystems, including improvements to sector-specific digital systems, investments in digital global goods, legal frameworks, national strategies, and in-country capacities. Through the implementation of this *Digital Strategy*, USAID will continue to invest in these components and coordinate with the U.S. Government interagency, while recognizing that our approach must depend on a rigorous understanding of the gaps, dynamics, and opportunities presented by each national context. Country-level digital ecosystem assessments will complement our understanding of how a country's technological readiness can inform strategies, programming, and partnerships to help foster self-reliance.

GLOBAL GOODS

"Global goods" are generally described as any tool that is non-rivalrous, meaning use by one actor does not reduce the utility of the tool for use by another actor, and that is available for use by any actor. In the context of digital development, global goods are adaptable to different contexts, funded by multiple sources, and implemented by a large number of parties, and, in the case of software, interoperable across commonly used systems. They are often, but not always, open-source; however, "open-source" does not always mean "free of cost" or "free of intellectual-property rights."

Digital ecosystems are strongest when all players are free to exercise choice and agency in a balanced way.[97] Governments and civil society rely on private companies to build and operate complex digital infrastructure. Government then plays a critical role in regulating the delivery of digital services; protecting the interests of consumers; ensuring local higher-education institutions can strengthen digital skill-building and literacy; and addressing market failures to promote equitable opportunity for innovation and access to, and the use of, digital technology. Citizens rely on the public and private sectors to offer fair access to digital technology, the Internet, and digital information. Donors such as USAID can help foster robust digital ecosystems by strengthening local capacity, promoting policy reform, catalyzing the market, investing in digital global goods, and mitigating risks that hinder sustainable investment.

TABLE 2: RESULTS FRAMEWORK FOR THE USAID DIGITAL STRATEGY

VISION

Advance progress in communities in our partner countries on their journeys to Self-Reliance through efficient, effective, and responsible digital initiatives that enhance security and economic prosperity, consistent with the American values of respect for individual rights, freedom of expression, and the promotion of democratic norms and practices.

GOAL

To achieve and sustain open, secure, and inclusive digital ecosystems that contribute to measurable development and humanitarian-assistance outcomes and increase self-reliance in our partner countries.

SO 1: Improve measurable development and humanitarian-assistance outcomes through the responsible use of digital technology in USAID's programming		**SO 2:** Strengthen the openness, security, and inclusiveness of national digital ecosystems		
IR 1: Secure and appropriate use of digital technology across USAID's programming improves measurable development and humanitarian-assistance outcomes	**IR 2:** USAID's partners use effective approaches to engage with the digital ecosystem responsibly	**IR 3:** Communities in partner countries adopt, and have the capacity to securely use, and contribute to, digital ecosystems for improved services, economic opportunities, and civic engagement	**IR 4:** Improved commitment and capacity in partner countries foster digital ecosystems that align with established global best practices	**IR 5:** Digital economies led by the private sector are competitive, innovative, responsible, and inclusive
Sub-IR 1.1: Insights from assessments of digital ecosystems and advanced data analysis used across USAID's Program Cycle (to inform strategic planning and design)	**Sub-IR 2.1:** USAID's partners demonstrate digital awareness and alignment with established digital best practices	**Sub-IR 3.1:** Vulnerable or underserved groups are capable of using, contributing to, and benefiting from digital ecosystems	**Sub-IR 4.1:** Internationally established digital best practices implemented by public institutions and the private sector	**Sub-IR 5.1:** Private-sector investments in digital infrastructure and services align with internationally established best practices
Sub-IR 1.2: Established digital best practices integrated into Missions' strategies, programming, monitoring, and evaluation	**Sub-IR 2.2:** Exchanges of information between USAID and its partners expand established digital best practices	**Sub-IR 3.2:** The secure and responsible use of digital ecosystems increases the effectiveness of civil society and the media, including organizations led by women, youth, people from religious and ethnic minorities, and Indigenous Peoples	**Sub-IR 4.2:** Enabling environment for digital ecosystems improved through collaboration between USAID, governments, the private sector, and civil society; malign influences in digital ecosystems countered	**Sub-IR 5.2:** Private-sector skills, incentives, and capabilities contribute to development and promote inclusive and responsible service-delivery in the digital economy
Sub-IR 1.3: Missions make cross-sectoral investments in components of the digital ecosystem, such as infrastructure, services, policies, organizational commitment, *etc.*	**Sub-IR 2.3:** Multi-stakeholder engagements improve alignment with, or reform, the digital strategies, policies, and systems of partner governments	**Sub-IR 3.3:** Individuals and micro, small, and medium-sized enterprises (MSMEs) engage with the digital ecosystem to gain access to markets, information, and finance	**Sub-IR 4.3:** Policy-makers and regulators engage with, and provide responsible oversight of, digital ecosystems	**Sub-IR 5.3:** Local innovators, especially women, youth, ethnic and religious minorities, and Indigenous Peoples, participate in the digital economy
Sub-IR 1.4: Agency staff demonstrate awareness of, and competence and capabilities in, digital development				

CONCLUSION

Today's digital transformation, with all of its potential benefits and risks, can appear rapid, unprecedented, and even disorienting; however, it is only the beginning. We ultimately do not know what new technologies will arise in the coming years, or how people will use them in the world's changing demography, governance, and environment. Nor do we know what types of challenges we will have to address as global pandemics or man-made disasters unexpectedly arise. What we know with certainty is that USAID's mission, and implementing the USAID *Digital Strategy* will contribute to the goal of ending the need for foreign assistance. This *Digital Strategy* is an important step toward reaffirming USAID's role in the digital era to promote and realize democratic values abroad and advance a free, peaceful, and prosperous world.

Recent efforts to fight the COVID-19 pandemic demonstrate the incredible power digital technology offers as we rise to face unprecedented global threats and support communities along their Journeys to Self-Reliance. Digital health-information systems supported by USAID assist doctors and nurses in their response efforts. The Government of Liberia is using mHero, a two-way information-sharing platform developed during the West Africa Ebola outbreak to communicate with frontline health workers. Thanks to mHero's interoperable, flexible design, the Government has repurposed the system to send weekly updates on COVID-19 to the field, and to support early case-detection. These life-saving innovations are possible not just in Liberia but in all countries, and, as part of the *Digital Strategy*, USAID will promote this type of digital development worldwide.

Fortunately, we are not alone on this journey. This is a moment of opportunity for governments and citizens around the world to engage in an earnest public discussion about topics like digital access, interoperability, the ownership and privacy of data, and the effects of algorithms on society.[98] The potential for the misuse of digital tools also creates opportunities for USAID to lead by anticipating and mitigating digital risks to promote democracy and human rights.

USAID's programming must ensure that laws, policies, actions, and informal governance mechanisms funded by U.S. taxpayers all contribute to a more open, inclusive, and secure global digital ecosystem and digitally enabled society. Governments with political will and technical capacity will be able to take steps that are ultimately in the interest of, and democratically guided by, their citizens to make clear and informed choices about digital infrastructure; develop national strategies and plans to guide investments; strengthen cybersecurity, ensure digital services are inclusive; and deliver more reliable, higher-quality data. As a responsible steward of U.S. taxpayer dollars, USAID will identify and appropriately budget for the long-term costs associated with building, operating, and maintaining digital infrastructure and systems, as well as foster sustainable ownership and management of these systems by governments and the private sector in our partner countries.

USAID will continue to ensure that technology and digital ecosystems are built and used to enable women and men to live freer, healthier, more prosperous lives. We envision a world that overcomes the chasm between the digitally enriched and an unemployable underclass; where there is a global convergence toward democratic governance and higher living standards; and in which self-reliant countries guarantee democracy, security, dignity, human rights, and justice for their citizens.

ANNEX III

GLOSSARY

This document uses the following definitions. Some terms lack a universally recognized definition.

ADOPTION

Changes that happen when people or institutions begin to use a new technology and incorporate it into their existing routines or processes. For example, people who use a mobile-money account to receive remittances and pay bills would be considered "adopters," while those who make a one-time withdrawal to empty a cash-transfer account would not.

ARTIFICIAL INTELLIGENCE (AI)

The science and technology of creating intelligent systems. Machine learning (ML) often enables AI systems, which apply data-derived predictions to automate decisions. While ML focuses on learning and prediction, AI applications often create, plan, or do something in the real world.[119] Automated decisions might be directly implemented (*e.g.*, in robotics) or suggested to a human decision-maker (*e.g.*, product recommendations in online shopping).

CENSORSHIP

The suppression of free speech by governments or private institutions based on the assumption that said speech is objectionable or offensive.[120] In addition to hard forms of censorship (handed down officially through laws and regulations), soft forms of censorship exist (applied through financial and/or reputational pressure).[121]

CIVIL LIBERTIES

Individual rights protected from unjust interference by governmental or other actors. In the United States, the first ten Amendments to the U.S. Constitution, known collectively as the Bill of Rights, enshrine these rights. Civil liberties include the right to the freedoms of expression and association and peaceful assembly, also recognized as universal human rights under the Universal Declaration of Human Rights.[122]

CYBERSECURITY

The prevention of damage to, protection of, and restoration of computers, electronic communications systems, electronic communications services, wire communication, and electronic communication, including information contained therein, to ensure its availability, integrity, authentication, confidentiality, and nonrepudiation.[123] As the *Cybersecurity Strategy* of the U.S. Department of Homeland Security (DHS) emphasizes: "Cybersecurity is not an end unto itself, and efforts to mitigate cybersecurity risks must also support international commerce, strengthen international security, and foster free expression and innovation."[124]

DATA LOCALIZATION LAWS

Laws that require data to be stored, processed, or handled within the borders of the country where the data originated. Many countries are adopting data-localization laws to avoid surveillance or interference by foreign governments or corporations. At the same time, data-localization laws can leave citizens and businesses with no means to avoid surveillance by the intelligence agencies of their own governments and hinder cross-border flows of data, which can have a negative effect on e-commerce and the development of an open, secure, and inclusive digital ecosystem.[125]

DATA PRIVACY

The right of an individual or group to maintain control over, and the confidentiality of, information about themselves, especially when that intrusion results from undue or illegal gathering and use of data about that individual or group.[126]

DATA PROTECTION

The practice of ensuring the protection of data from unauthorized access, use, disclosure, disruption, modification, or destruction, to provide confidentiality, integrity, and availability.[127]

DIGITAL AUTHORITARIANISM

The use of digital information technology by authoritarian regimes to surveil, repress, and manipulate domestic and foreign populations.[128]

DIGITAL DIVIDE

The distinction between those who have access to the Internet and can make use of digital communications services, and those who find themselves excluded from these services.[129] Often, one can point to multiple and overlapping digital divides, which stem from inequities in access, literacy, cost, or the relevance of services. Factors such as high cost and limited infrastructure often exacerbate digital divides.

DIGITAL ECONOMY

The use of digital and Internet infrastructure by individuals, businesses, and government to interact with each other, engage in economic activity, and access both digital and non-digital goods and services. As the ecosystem supporting it matures, the digital economy might grow to encompass all sectors of the economy—a transformation driven by both the rise of new services and entrants, as well as backward linkages with the traditional, pre-digital economy. A diverse array of technologies and platforms facilitate activity in the digital economy; however, much activity relies in some measure on the Internet, mobile phones, digital data, and digital payments.

DIGITAL ECOSYSTEM

The stakeholders, systems, and enabling environment that together empower people and communities to use digital technology to gain access to services, engage with each other, or pursue economic opportunities. A digital ecosystem is conceptually similar to, but broader than, a digital economy. Although certain aspects of the digital ecosystem have country-wide reach, other features differ across geographies or communities. The critical pillars of a digital ecosystem include the following: (1) sound enabling environment and policy commitment; (2) robust and resilient digital infrastructure; (3) capable digital service-providers and workforce (*e.g.*, both public and private institutions); and, (4) empowered end-users of digitally enabled services.

DIGITAL IDENTITY

The widely accepted *Principles on Identification*[130] define identity as "a set of attributes that uniquely describes an individual or entity." Digital identification (ID) systems often require registering individuals onto a computerized database and providing certain credentials (*e.g.*, identifying numbers, cards, digital certificates, *etc.*) as proof of identity. Government actors can set up these systems to create foundational, national ID programs, or donors or non-governmental organizations (NGOs) for functional purposes to identify beneficiaries, *e.g.*, for humanitarian assistance and service-delivery.

DIGITAL INFRASTRUCTURE

The foundational components that enable digital technologies and services. Examples of digital infrastructure include fiber-optic cables, cell towers, satellites, data centers, software platforms, and end-user devices.

DIGITAL LITERACY

The ability to "access, manage, understand, integrate, communicate, evaluate, and create information safely and appropriately through digital devices and networked technologies for participation in economic and social life. This may include competencies that are variously referred to as computer literacy, information and communications technology (ICT) literacy, information literacy, and media literacy."[131]

DIGITAL TECHNOLOGY

This *Strategy* uses the term "digital technology" not only to describe a type of technology but also to refer to the platforms, processes, and range of technologies that underpin modern ICT, including the Internet and mobile-phone platforms, as well as advanced data infrastructure and analytical approaches.

DIGITAL TOOL

Application of digital technologies to meet a specific human need. Digital tools differ from infrastructure in that they are geared toward a specific application, while infrastructure tends to be more general-purpose.

ANNEX III

DIGITAL TRADE (OR ELECTRONIC COMMERCE OR E-COMMERCE)

According to the World Trade Organization, the production, distribution, marketing, sale, or delivery of goods and services by electronic means.[132]

DISINFORMATION

A piece of information that is *intentionally* false or misleading and deliberately used by the producer to achieve a specific social, economic, and/or political objective. Disinformation is often confused with misinformation, which is false or misleading information shared by error or mistake.[133]

DOXING

The act of publishing personally identifiable information (PII) online without an individual's consent with the intent to cause harm to that individual's reputation and/or physical safety.[134]

HATE SPEECH

The use of speech to make direct attacks against an individual or a group of people based on a series of protected characteristics, such as race, ethnicity, nationality, religion, sex, sexual orientation, gender identity, and physical or mental ability.[135]

INCLUSIVE DEVELOPMENT

An approach to development that ensures all people are included, can participate fully in, and benefit from development efforts.[136]

INTERNET FREEDOM

According to the United States Government, the online exercise of human rights and fundamental freedoms regardless of frontiers or medium. The same rights that people have offline must also be protected online—in particular freedom of expression, which is applicable regardless of frontiers and through any media of one's choice.[137]

INTERNET OF THINGS

A global infrastructure for the information society that enables advanced services by interconnecting (physical and virtual) things based on existing and evolving interoperable information and communication technologies.[138]

MACHINE LEARNING (ML)

A set of methods that train computers to learn from data, where "learning" generally amounts to the detection of patterns or structures in data. ML approaches begin by finding patterns in a subset of existing data and use them to make predictions for new, unseen data.[139]

PARTNER

An organization or individual with which/whom the U.S. Agency for International Development collaborates to achieve mutually agreed upon objectives and to secure the participation of ultimate customers. Partners include host-country governments, private voluntary organizations, local and international non-governmental organizations, faith-based organizations, universities, other U.S. Government Departments and Agencies, the United Nations and other multilateral organizations, professional and business associations, and private businesses and individuals.[140]

PLATFORM

A group of technologies used as a base upon which other technologies can be built or applications and services run. For example, the Internet is a platform that enables web applications and services.

UNIVERSAL HUMAN RIGHTS

A set of rights inherent to all people regardless of place of birth, nationality, and/or citizenship, as defined by the Universal Declaration of Human Rights, including the rights to life, liberty, and security of person; freedom from slavery and torture; freedom of expression, association, and peaceful assembly; as well as the right to access work and education.[141]

VIOLENT EXTREMISM

Advocating, engaging in, preparing or otherwise supporting ideologically motivated violence to further social, economic, political, or religious objectives.[142]

EXHIBIT 48

GLOBAL DATA ALLIANCE
TRUST ACROSS BORDERS

SUPPLY CHAIN RESILIENCE ISSUE BRIEF

CROSS-BORDER DATA TRANSFERS & SMALL BUSINESS

Cross-border data transfers can help small businesses by (1) increasing access to digital knowledge resources and overseas markets and leveling the playing field vis-à-vis larger enterprises; (2) offering a "digital dividend" that can be enjoyed by millions of small businesses globally; (3) allowing small businesses to use cross-border digital tools to seize economic opportunity with agility; and (4) reducing digital barriers that disproportionately impact small businesses.

- **Data Transfers & Leveling the Playing Field for Small Business.** Small businesses face knowledge and access barriers that larger enterprises can more easily overcome. Data transfers and cross-border access to technology and markets help level the playing field. As the Organisation for Economic Co-operation and Development (OECD) has explained, cross-border data flows are especially important for small businesses.…Better and faster access to critical knowledge and information also helps small businesses overcome informational disadvantages, notably with respect to larger firms, reducing barriers to engaging in international trade and allowing them more readily to compete with larger firms. One recent study estimates that digital tools helped small businesses reduce export costs by 82 percent and transaction times by 29 percent. Data localization and transfer restrictions make it harder to achieve these benefits, in part because they produce a fragmented Internet that reduces market opportunities for domestic small businesses to reach worldwide markets, which may instead be confined to some local or regional markets.

- **Data Transfers & Small Business Digital Agility.** Many small businesses demonstrate a greater degree of digital business agility than larger enterprises. Studies have found that, while 95 percent of small businesses were negatively impacted by the COVID-19 pandemic, the pandemic also caused 70 percent of small businesses to accelerate efforts to become more digitally competitive. The most digitally progressive small- and medium-sized enterprises (SMEs) are growing eight times faster than the least progressive. Studies have also found that small businesses with a strong digital presence grow twice as fast, and are 50 percent more likely to sell outside their region, relative to those with little or no digital presence. In a recent Center for Strategic and International Studies (CSIS) study, 65 percent of small business surveyed indicated they moved data across borders, with even higher percentages for those that export.

- **Data Transfers & the Disproportionate Impact of Digital Restrictions on Small Business.** Unfortunately, the number and variety of digital trade barriers affecting small businesses has increased in recent years, and today include data localization mandates; unnecessary data transfer restrictions; customs duties on electronic transmissions; or other discriminatory digital measures. These types of digital barriers fall particularly heavily on small businesses, which lack the resources that larger companies can draw upon to comply with onerous mandates. In a recent CSIS study, small businesses highlighted divergent data privacy rules (40–60 percent of SME survey respondents) and data localization rules (30–40 percent of SME respondents) as key challenges. Conversely, with greater cross-border connectivity, small businesses estimate that they could increase sales by 15–40 percent and hire between 10–50 new employees each.

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EXHIBIT 49A

April 16, 2024

The Honorable Jason Smith
Chair
Ways and Means Committee
U.S. House of Representatives
Washington, District of Columbia 20515

The Honorable Richard Neal
Ranking Member
Ways and Means Committee
U.S. House of Representatives
Washington, District of Columbia 20515

Re: April 16, 2024 House Committee on Ways and Means Hearing on the Biden Administration's 2024 Trade Policy Agenda; the Imperative for Support of Startups, Small Businesses, and Entrepreneurs in the Global Digital Economy

The undersigned, representing a broad and diverse community of entrepreneur, small business, and startup innovators, collectively share our deep concern with the United States Trade Representative's (USTR) decision to withdraw its support for foundational positions on digital trade policy.

We represent and support the U.S. startups and small businesses that are the driving force behind equitable economic growth, competition, innovation, and export of countless consumer and enterprise products and services. They make software, hardware, and internet of things (IoT) solutions and systems for agriculture, education, healthcare, manufacturing, public safety, and countless other uses. They employ tens of millions of Americans who live and work in communities in every state of the nation and are responsible for adding more than $2.41 trillion to the American gross domestic product.

The U.S. government's consistent support for policies that reduce artificial barriers to digital trade has long provided an important foundation for even the smallest American companies' competitiveness abroad. As the digital transition has continued and regulators abroad have increasingly sought to exclude American small business and startup innovators from their markets, this support has never been more important. Unlike larger companies, smaller businesses with few product or service lines usually cannot shoulder the superfluous costs of data localization, technology transfer, prohibitions on encryption, and arbitrary application of regulation to American firms.

We are therefore significantly concerned with the USTR's withdrawal of its support for foundational digital trade policies, including with respect to enabling cross-border data flows,

avoiding forced data localization mandates, protecting source code, and ensuring that digital products are not unduly discriminated against. Stepping away from the negotiating table weakens the global competitiveness of U.S. startups and small businesses, cedes leadership to countries like China that remain engaged, and buoys anti-democratic and oppressive governance proposals and policies that directly contradict U.S. policies, including those just agreed to by the United States in the G7. Even more recently, the USTR's contradictory positioning has been exacerbated by its decision to ignore numerous digital trade barriers in jurisdictions abroad in its annual National Trade Estimate Report on Foreign Trade Barriers, contrary to the plain language of Section 181 of the Trade Act of 1974. Unfortunately, on net, the Administration's unfortunately policy shift has damaged, and continues to damage, U.S. leadership and standing across multilateral policy fora like the WTO as well as in bilateral negotiations with important trading partners. The decision further sets a concerning precedent that may not end with digital trade priorities, including affecting enforcement of the United States-Mexico-Canada Agreement (USMCA) and creating a potential path for USTR's reversal on advancing American trade interests in other areas.

It is vital that Congress and the Administration reassure the American small business community, trading partners, and others that its support for digital trade policies will continue. We request your assistance in ensuring that the Administration complete appropriate interagency processes and formally seek public input before initiating sweeping policy changes on digital trade.

Thank you for the opportunity to bring your attention to this vital issue. We appreciate the Committee's continued support of equitable participating in trade of U.S. entrepreneurs, startups, and small businesses.

Sincerely,

ACT | The App Association

Center for American Entrepreneurship

Engine

Global Innovation Forum

Small Business & Entrepreneurship Council

EXHIBIT 49B

November 3, 2023

President Joseph R. Biden
The White House
1600 Pennsylvania Avenue, NW
Washington, District of Columbia 20500

Re: The Imperative for U.S. Government Support of Startups, Small Businesses, and Entrepreneurs in the Global Digital Economy

The undersigned, representing a broad and diverse community of entrepreneur, small business, and startup innovators, collectively share our deep concern with the United States Trade Representative's (USTR) decision to withdraw its support for foundational positions on digital trade policy within the World Trade Organization (WTO).

The communities we represent and support are the U.S. startups and small businesses that are the driving force behind equitable economic growth, competition, innovation, and export of countless consumer and enterprise products and services. They make software, hardware, and internet of things (IoT) solutions and systems for agriculture, education, healthcare, manufacturing, public safety, and countless other examples. They employ tens of millions of Americans who live and work in communities in every state of the nation and are responsible for adding more than $2.41 trillion to the American gross domestic product.

The U.S. government's consistent support for policies that reduce artificial barriers to digital trade has long provided an important foundation for even the smallest American companies' competitiveness abroad. As the digital transition has continued and regulators abroad have increasingly sought to exclude American small business and startup innovators from their markets, this support has never been more important. Unlike larger companies, smaller businesses with few product or service lines usually cannot shoulder the superfluous costs of data localization, technology transfer, prohibitions on encryption, and arbitrary application of regulation to American firms.

We are therefore significantly concerned with the USTR's October 25, 2023, announcement in a press statement of its withdrawal of support for foundational digital trade policies, including with respect to enabling cross-border data flows, avoiding forced data localization mandates, protecting source code, and ensuring that digital products are not unduly discriminated against. Stepping away from the negotiating table weakens the global competitiveness of U.S. startups and small businesses and cedes leadership to countries like China that remain at the table, buoying anti-democratic and oppressive governance proposals and policies that directly contradict U.S. policies, including those just agreed to by the United States in the G7. The contradictory announcement also damages U.S. leadership and standing across multilateral policy fora like the WTO as well as in bilateral negotiations with important trading partners. The decision further sets a concerning precedent that may not end with digital trade priorities, including affecting enforcement of the United States-Mexico-Canada Agreement (USMCA) and

creating a potential path for USTR's reversal on advancing American trade interests in other areas.

At this pivotal moment, it is vital that the Administration reassure the American small business community, trading partners, and others that its support for digital trade policies will continue. At minimum, the Administration should complete appropriate interagency processes and formally seek public input before initiating sweeping policy changes on digital trade.

We welcome your partnership in supporting U.S. entrepreneurs, startups, and small businesses' equitable participation in trade.

Sincerely,

365.Training

ACT | The App Association

Allied for Startups

Center for American Entrepreneurship

Colorado Technology Consultants

Connected Commerce Council

Developers Alliance

Dogtown Media

Engine

Epic Reach

FMS, Inc.

Global Innovation Forum

GlobalForce Tech Consulting

MotionMobs

SheerID

Small Business & Entrepreneurship Council

Vemos

EXHIBIT 50

U.S. Chamber of Commerce

How USTR's Digital Trade Reversal Will Hurt Small Businesses

Small businesses will face increased lo istics and e-commerce costs due to the retraction of widely supported U.S. di ital trade rules.

Isabelle Icso
Senior Director, International Policy, U.S. Chamber of Commerce

Published
November 20, 2023

Last month, the Office of the U.S. Trade Representative (USTR) announced it was walkin back the longstanding U.S. position in support of strong di ital trade rules. As we previously noted, this move will harm American workers, open the door to unfair treatment of U.S. companies, and threaten our lobal competitiveness.

These rules are framed to prevent foreign overnments from unfairly targetin American companies. USTR's shift sends a si nal that Washin ton may no longer protest such discrimination against U.S. companies.

Of primary concern is that American small and medium-sized businesses will be hit hard. Let's take a step back to identify the issue and why it's so critical to the success of smaller businesses across the U.S.

What is digital trade?

Digital trade is commerce enabled by electronic means. In other words, it is anything that is facilitated by digital technologies, whether it is digitally or physically delivered. For example, digital trade would include the purchase and physical delivery of a paper book through an online marketplace as well as the purchase and digital delivery of an e-book.

Why does it matter to small businesses?

Digital trade is opening markets to American small businesses, which have seen their overseas opportunities grow thanks to e-commerce platforms and digital advertising tools that allow them to benefit from the following (among many other things):

- find new customers via targeted online search and other tools;
- adopt e-payment systems that ensure quick, economical, and safe transactions;
- employ cloud technology that allow them to operate with the sophistication of a major multinational business; and
- utilize shipping, customs clearance, and fulfillment providers that enable them to send products worldwide.

How will USTR's move impact small businesses?

Unlike larger companies, smaller businesses with fewer products, service lines, and resources usually cannot carry the increased costs of data localization, forced technology transfers, and arbitrary application of regulation to U.S. firms.

Removing U.S. support for combating cross-border data restrictions will make it easier for other countries to impose forced localization of data or other measures on critical data flows. It will also make it harder for smaller businesses to move their data across borders.

Additionally, ending U.S. support for source code protections will make it easier for adversaries to carry out cyber and intellectual property theft against vulnerable businesses—the costs for which are harder for small businesses to bear.

Finally, weakening protections for U.S. companies abroad will incentivize foreign governments to employ discriminatory practices as a way of generating revenue or meeting political goals—all at the expense of the U.S. economy.

This all comes at a time when global barriers—like data localization measures and other regulatory restrictions—to U.S. digitally tradeable services exports are on the rise. Left unchecked, the proliferation of these restrictions threatens to deprive American workers and companies of the potential benefits of exporting digitally tradeable services.

What's next?

As noted in a recent letter outlining the USTR decision's impacts on smaller firms:

"Stepping away from the negotiating table weakens the global competitiveness of U.S. startups and small businesses and cedes leadership to countries like China that remain at the table, buoying anti-democratic and oppressive governance proposals and policies that directly contradict U.S. policies, including those just agreed to by the United States in the G7."

Small and medium-sized businesses are resilient, but that doesn't mean they are impervious to the harm wrought by sudden policy changes. They shouldn't have to worry that the U.S. government won't have their back. USTR needs to restore America's longstanding support for strong digital trade rules—for the sake of U.S. businesses of all sizes.

About the authors

Isabelle Icso

Isabelle Icso, senior director of international policy at the U.S. Chamber of Commerce, advocates for the Chamber's international trade and investment priorities before the administration, Congress, and foreign governments.

Topics

INTERNATIONAL TRADE AGREEMENTS

EXHIBIT 51

Why Has the U.S. Trade Representative Stopped Supporting Small Business Digital Trade?

While the global digital economy holds great promise for ACT | The App Association member companies, our members face a diverse array of challenges when entering or operating in new markets. These take the form of laws, regulations, policies, or practices that are often put into place to protect domestic goods and services from foreign competition, artificially stimulate exports of particular domestic goods and services, or fail to provide adequate and effective protection of intellectual property (IP) rights. While they affect any American business looking to grow and create jobs, small businesses like App Association members are most acutely impacted.

The global digital economy, valued by the World Trade Organization (WTO) at over $3.8 trillion, has become a primary means for American small businesses to innovate and compete and provides an unparalleled means of empowerment and equity. The relatively ubiquitous access to internet-based services and goods also provides critical channels for the free exchange of ideas and enables technical protection measures, supporting human rights. With American small businesses and startups driving the growth of the digital economy and already responsible for more than 6 million U.S. jobs, this makes U.S. small business innovations one of the United States' greatest exports.

So, we look to the U.S. government to protect our small businesses' ability to access new markets abroad and be able to compete against them. There has never been a more urgent need for U.S. government support than today. For example, as we have explained in past blogs and formal comments on trade barriers, the European Union's Digital Markets Act (DMA) presents a significant protectionist barrier to digital trade by interjecting government into the operations of competitive and well-functioning digital markets. These online marketplaces enable countless small businesses to grow and create jobs, and the DMA would expressly jeopardize key platform functionalities on which small businesses rely (cybersecurity, privacy, IP protection, accessibility, etc.).

And across each and every Administration and Congress since the emergence of the digital economy in the 1990s, the U.S. government has done this by

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promoting—through its positions in key fora like the World Trade Organization, in treaties it negotiates, and otherwise—policies that promote fair access and competition among U.S. trading partners. To run with the example raised above, the DMA has already been appropriately acknowledged by the U.S. Trade Representative as a barrier to digital trade in their annual report to Congress on trade barriers. This support has been vital to protecting American commerce and workers since the rise of the internet.

That is, until recently. In late 2023, the USTR indicated through a press inquiry response that it intends to withdraw its support for foundational digital trade policies, including with respect to enabling cross-border data flows, avoiding forced data localization mandates, protecting source code, and ensuring that digital products are not unduly discriminated against. As we made clear at the time, stepping away from the negotiating table weakens the global competitiveness of U.S. startups and small businesses, as well as workers, and cedes leadership to countries like China that remain at the table, buoying anti-democratic and oppressive governance proposals and policies that directly contradict U.S. policies. And even more recently, the USTR's recently-issued 2024 edition of its report to Congress on trade barriers scales back its recognition of a wide range of significant digital trade barriers, including data localization policies, the DMA, and others.

So when our colleague, Caleb Williamson, asked U.S. Trade Representative Katherine Tai during a recent South by Southwest panel about why the DMA is suddenly no longer considered a trade barrier and how this Administration plans to support small businesses that rely on platforms for access and trust, our hope was that we might gain some insight into how the U.S. government plans to push back against a policy that is clearly a protectionist measure put into place to discourage U.S. digital economy growth in the EU. Her answer?

"So, it's true that [the DMA] was in the 2023 report as a potential barrier, and that does reflect our traditional approach to trade, which is to look at regulatory activities from other countries and to see how they might impact American company interests. I think that the DMA is a really good example of the cusp of change and the cusp of increased nuance that we are bringing, especially to digital economy issues, when we talk about the platforms. Yes, I know a lot of small businesses have told me that the platforms are creating the entry point for them to connect with the global economy, and that's a wonderful thing that's something that we should celebrate because it is about opening up more opportunities, especially for the small and the medium companies. Here's the issue: shouldn't we have more platforms, then? Shouldn't we have more opportunities like that? I think the DMA's approach is to look at some of these platforms and to look at their role as gatekeepers. But as we're connecting the trade conversation with the competition and anti-monopoly conversation, the other way I might frame that is some of these platforms serving as the choke points, being a platform like that, when you're operating in the best possible terms you're creating opportunities, but when there aren't enough of those types of platforms, what that means is those platforms have a lot of power to determine when

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- United Kingdom
- Workforce Development

and how those opportunities can be accessed by the smalls and the mediums, so that's an aspect of our trade policy that is in formation right now, which is to not rely on our old instincts of, what's the nationality of your company and whose side I should be fighting on right now. The question that we're looking at is, what's the pro-democracy, pro-competition, and pro-worker angle, and it is shifting the conversation that we're having."

This response and the Administration's rationales offered to date for their unprecedented digital trade policy shift do not give us much to be confident about. Significant questions remain unanswered, such as how have the digital trade policies of the United States, which have enjoyed bipartisan support for more than 25 years and tracked with the growth of the app economy and its support for more than 6 million U.S. jobs, suddenly ceased to support competition, worker, and human rights priorities? And how would international trade agreements the United States is part of prevent the application of U.S. policy to companies operating domestically?

It's important that the U.S. government understand that small business innovators do not seek to replicate the EU's interventionist policies, none of which have translated to increased competitiveness or growth for its Member States. We are not doomed to repeat the EU's mistakes on innovation, and we urge policymakers around the world to learn these lessons before it's too late.

By Brian Scarpelli | April 12th, 2024 | Blog, Competition, Trade

EXHIBIT 52

Another Blow Meant for Big Tech Lands on the Left Eye of Small Biz

For as long as the United States has had a digital economy, the nation's trade negotiators have fought tirelessly to combat foreign policies that would impede American innovators' ability to compete in the global market. In an unprecedented move, the Office of the United States Trade Representative (USTR) decided to withdraw U.S. support from our own digital trade priorities at the World Trade Organization (WTO). The stated reason for this withdrawal is to "provide enough policy space" for debate on regulations directed specifically at the digital economy. In other words, USTR is trying to draw down support for U.S. tech-driven industries in order to make way for foreign governments to harshly regulate large American tech companies. In practice, USTR's decision will weaken the ability of U.S. small business innovators to grow and create new American jobs. Further, the credibility and negotiating position of the U.S. government in international fora like the WTO, and in bilateral negotiations with trading partners, will be permanently undercut.

There are several reasons, among others, that this decision will harm small companies like App Association members, which we elaborate on more in our National Trade Estimate filing for 2024.

Data Localization and Cross-Border Data Flows. Since the beginning of the internet, governments around the world have sought to require any company doing virtual business within a given jurisdiction to store any associated data physically within that jurisdiction's borders. Pushing back against data localization is one of the priorities USTR is abandoning at WTO. Specifically, some countries have adopted or are considering requirements for American companies to buy or rent data centers inside the host country. Unfortunately, these kinds of policies are attractive to some foreign nations because they mandate that American companies spend money locally; they operate to subject affected data to local laws (including for surveillance); and they create a barrier to entry mainly for American firms. Unfortunately, while larger companies can pay their way through this barrier, smaller companies are often unable to shoulder the additional costs of data localization, deepening resource disadvantages for smaller competitors in the app economy.

Source Code Transfer. Another of the priorities USTR is walking away from is combatting efforts by some countries, especially China, to require companies doing business in a given country to provide highly sensitive and valuable

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source code to that country's government. With the United States walking away from this priority, China is now free to advance its interest in requiring foreign companies to give it access to their source code. Again, smaller companies are unlikely to be able to combat such a requirement effectively and the risk that a foreign government would steal it rather than honoring any promise to put it in "escrow" would be greater given that smaller companies are less able to fight back. Trade secrets and intellectual property are the bulwark smaller companies in tech-driven sectors have against more well-resourced competition.

Misapplication of Competition Laws to New and Emerging Tech Markets. As we discuss further in our white paper on this issue, frameworks like the Digital Markets Act (DMA) could diminish the online marketplaces our member companies use. This is in part because open access requirements in the DMA (and similar proposals and policies across other important markets) would introduce new security and privacy vulnerabilities, which disproportionately harm small app company prospects. But the open access mandates would also hamstring American competitors, opening significant market opportunities for rival companies owned by Chinese firms that would not be subject to the regulatory framework.

The long-standing commitment the United States has honored to combat harmful policies overseas is one on which smaller companies have relied implicitly. Even the smallest App Association members are global firms in part because USTR and other American trade negotiators have successfully kept overseas markets open. As recently as June 2023, USTR reiterated that the United States opposes policies that force technology transfer, unjustifiable or arbitrary application of regulations, and similar discriminatory trade practices. USTR's decision in this case is anomalous and runs counter to the Biden Administration's overall position on digital trade, including its opposition to Digital Service Taxes (DST) and proposals to require American digital service providers to pay for telecommunications network infrastructure deployment.

As we testified in Congress in 2017, "[a]n ever-growing number of American jobs depend on digital trade, while the interests that support digital protectionism are becoming more influential. We have much work to do to protect the vitality and dynamism of the digital economy . . .." Fast forward to now, and it is clear that digital protectionism continues to proliferate, making U.S. support for small business' interests in free and fair trade even more important. Fortunately, there is still an opportunity to do so, in part because USTR's decision did not leverage the interagency consultation process. The Administration should reconsider USTR's withdrawal with the benefit of input from other relevant parts of the federal government and, in the meantime, clarify that it will continue to advocate for long-held digital trade priorities.

By Graham Dufault | November 2nd, 2023 | Blog, Competition, Trade, Uncategorized

EXHIBIT 53

The Importance of Digital Trade for Small Businesses

The U.S. government's long-standing support for policies that reduce artificial barriers to digital trade has provided an important foundation for even the smallest American companies' competitiveness abroad. As virtually all industries continue their transition to digital, and regulators abroad have increasingly sought policies that would exclude American small businesses and startup innovators from their markets, this federal backing has never been more important. Unlike larger companies, smaller businesses with few product or service lines usually cannot shoulder the extra costs of data localization, technology transfer, prohibitions on encryption, and arbitrary application of regulation to American firms.

App Association members often only have a few employees, but almost all of them are global enterprises. They need support from the U.S. government to prevent digital trade barriers at national borders so that they can continue to innovate, create well-paying jobs, and contribute to both the domestic and international economies. Another vital issue for our member companies is the extension of the e-commerce moratorium at this month's World Trade Organization (WTO) ministerial conference. The 1998 Declaration on Global Electronic Commerce's moratorium on tariffs and customs formalities on electronic transmissions, including content, has underpinned growth and job creation across consumer and enterprise markets. Especially for young software companies, the ability to distribute their products and services globally is sometimes a necessary condition. For many, making payroll would be impossible if their addressable market stopped at national borders. The moratorium has given entrepreneurs the green light to start tech-driven businesses in virtually every congressional district and a path to grow globally and to create and sustain jobs at home.

The imposition of tariffs and customs duties is already well known to raise costs for consumers, lower output, and reduce productivity. In addition, the moratorium's expiration would lead to a new range of customs administrative requirements that small business innovators like our members would need to navigate and comply with. As organizations that are already resource-constrained and unable to distribute risk across numerous product lines in comparison to large businesses, the impact on small businesses and startups will be far more pronounced and burdensome in comparison to larger companies.

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Because this issue is so important to small businesses like our members, we continue to encourage policymakers to reduce and remove trade barriers. We also recently shared our perspective with the House Ways & Means Committee following their recent hearing on the WTO ministerial. We will continue to ensure policymakers keep the needs of small businesses in mind.

By Taylor Downs | March 4th, 2024 | Blog, Competition, Trade

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EXHIBIT 54

For Startups' Sake, Congress Needs to Reorient US Trade Agency

https://www.engine.is/news/category/for-startups-sake-congress-needs-to-reorient-us-trade-agency?rq=ustr

Foreign nations are saddling U.S. companies — including startups — with discriminatory burdens. That deserves policymaker attention and fierce pushback from the administration's top trade official. Instead, the U.S. Trade Representative is tacitly endorsing those barrier-raising policies. That should be a scandal. U.S. companies — especially startups that naturally have fewer resources to overcome foreign trade barriers — need their trade representative to fight for them.

The last few months have brought a cascade of disappointments. In multilateral talks at the World Trade Organization last October, the U.S. Trade Representative retreated from important and long-held negotiating positions on source code protection, antidiscrimination, and free data flows. Shortly thereafter, the trade pillar of the Indo-Pacific Economic Framework was seemingly jettisoned. Last month, in the National Trade Estimate — an accounting of trade barriers faced by U.S. companies — USTR markedly dialed back the number of digital trade barriers they intend to address, especially around data localization. These changes are alarming for startups that rely on smart digital trade policy to keep barriers low and help them reach markets around the world.

This week, Ambassador Katherine Tai, the U.S. Trade Representative, will sit for annual hearings in both chambers on the trade agenda, the first time she's appearing since her unilateral 180 on digital trade that prompted bipartisan outrage. Members of Congress must use the opportunity to probe why her office is abandoning U.S. startups on the global stage.

Startups contribute overwhelmingly to U.S. economic growth and job creation, and they make up the majority of U.S. exporters. In order to succeed, they need a policy environment that keeps barriers to trade low. Historically and across administrations, the U.S. has pursued a strong, forward-looking digital trade agenda that sought to address digital trade barriers like data localization. That focus supported U.S. startups' competitiveness abroad, because the myriad barriers encountered by startups dictate the markets where they can reasonably enter, create additional costs that could instead fuel R&D and job creation, and hamper U.S. economic growth by limiting the flow of goods and services across borders.

Restrictions on cross-border data flows have particularly negative impacts on startups. When startups encounter limitations on how and when data can be transferred across borders, it increases costs and can cause startups to lose clients in jurisdictions where the restrictions are present. As one founder explained, such data restrictions forced their company to "make major investments" in new digital infrastructure that was both "very costly," and led the company to lose "prospects and customers as a result." Another startup founder emphasized how data-localization measures impact what is economical for the company to offer to their users, saying "there's a lot of things that can go away," because the policy puts them in the difficult position of "choosing to keep local data or drop it if it might not be worth it price-wise for customers." These sorts of barriers — where a foreign jurisdiction's policy is increasing costs and limiting offerings for U.S. companies — are the type that USTR signals they'll no longer fight. That's a stark change and leaves a bleak outlook for startups' competitiveness.

Ambassador Tai has sought to justify her moves on digital trade citing the need to provide "policy space," for domestic regulation in the tech sector. But the reversal seems motivated by favor for policies that critics of the tech sector can't pass through the Congress. Worse, that tussle over large technology companies leaves startups as collateral damage, especially when it comes to trade barriers like data localization.

The supposed need for "policy space" also seems to wrongly regard addressing trade barriers and domestic regulation as strictly in tension, which they are not. For example, USTR addressing discriminatory local data storage requirements (often imposed under the guise of enhancing privacy) does not impede the Congress from enacting a U.S. data privacy law. Ambassador Tai likes to say her agency

“can walk, chew gum, and play chess at the same time.” That’s close enough a description for how trade policy and domestic regulation can coexist, just as they have until this point.

Ambassador Tai also need not worry about getting ahead of the Congress for another reason. The vote authorizing the United States-Mexico-Canada Agreement was overwhelmingly bipartisan. That agreement included a novel and forward-looking digital trade chapter that should be regarded as the gold standard.

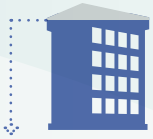
Startups need Congress to reorient USTR back toward the meat-and-potatoes of trade policy — advancing U.S. interests. In an open letter earlier this year, dozens of startups called on U.S. trade policymakers to “aggressively pursue policies that lower barriers to trade and enable startup success.” The opposite — active retreat — is happening now. Let’s hope Congress can steer the agency back on course.

EXHIBIT 55

GLOBAL DATA ALLIANCE
TRUST ACROSS BORDERS

CROSS-BORDER DATA TRANSFERS & SUPPLY CHAIN MANAGEMENT

Cross-border data transfers are integral to international supply chains, which depend upon the seamless movement of information across borders to optimize sourcing, finance, logistics, risk mitigation, and responsiveness. For most products and services, the supply chain process involves many phases, parties, and countries. It also involves potentially disruptive external factors–including weather conditions, raw material, and input shortages, geopolitical threats, or emergent health crises.[1] With 94 percent of Fortune 1000 companies reporting supply chain disruptions from COVID-19 in early 2020,[2] the global pandemic has further highlighted the complex and integrated nature of supply chains and the role of data transfers in risk mitigation and response.[3]



With 94% of Fortune 1000 companies reporting supply chain disruptions from COVID-19 in early 2020, the global pandemic has further highlighted… the role of data transfers in risk mitigation and response.

Supply-chain operators depend on data transfers and on cross-border access to industrial cloud infrastructure for sourcing, logistics, financial operations, and productivity enhancement, among other business software-driven applications. In every sector of the economy, cross-border information is helping to streamline supply-chain processes in a variety of ways. Digital technologies such as data analytics, artificial intelligence (AI), and blockchain support freight scheduling, sourcing, and inventory management; promote safety and fight counterfeiting; increase efficiency and resilience; reduce costs; and minimize disruption. For instance, AI solutions help predict demand along supply chains more accurately. Companies also use blockchain to quickly trace goods when they need to recall products.

The Top 5 Technology Priorities for Supply Chains Are All Data-Management Related[4]

CROSS-BORDER DATA TRANSFERS AND SUPPLY CHAIN INTEGRATION

Manufacturing, logistics, and retail industries can benefit from comprehensive process innovation and digital transformation by adopting technologies such as software-as-a-service, Internet of Things (IoT), AI and machine learning, real-time sensing technologies, and advanced analytics. Integrating these technologies can enhance the value chain within a company's cross-border operations and optimize production plans, supply and demand prediction, lead times, and store inventory management.

Japanese electronics leader Panasonic and US software company Blue Yonder co-develop integrated solutions to improve warehouses' efficiency in package sorting. Customers' out-of-stock information is sent in real-time across various locations from the retail store to factories, warehouses and store personnel, allowing for timelier shelf replenishment, improvements in production and shipping plans.[5]

CROSS-BORDER DATA TRANSFERS AND INVENTORY MANAGEMENT

Overstocking has historically been a strategy employed by companies to prevent sourcing or merchandise shortages that could negatively impact production or sales. This approach, however, ties up financial resources that could be invested in other areas and even causes companies to lose money if perishable or other products are not timely sold.

Data gathered from a variety of sources and geographies can help companies optimize their inventory levels and avoid unnecessary surpluses. AI solutions can leverage a vast amount of publicly available data gathered around the world to help predict how certain events–such as extreme weather and road conditions–may impact supply, production, and delivery.[6]

French logistics leader Geodis launched "GEODIS e-Logistics" in June 2020. The platform uses digital technology to provide a real-time overview of all available inventory, in-store, in warehouse or in transit, worldwide. It also provides for the management of orders no matter the sales channel, and determines the most appropriate supply source, delivery method and returns options.[7]

CROSS-BORDER DATA TRANSFERS AND DEMAND FORECASTING

Data analytics tools can be used to examine a vast amount of data that influenced past product demand. AI algorithms can be trained to use that information, combined with other data points to predict when a combination of factors will impact future demand. AI solutions can help companies reduce forecasting errors by 20 to 50 percent; and reduce lost sales caused by product shortage by up to 65 percent.[8]

36 percent of supply chain professionals say that optimizing inventory management to balance supply and demand is a top driver for using analytics.[9]

DATA TRANSFERS AND TRANSPORTATION/SHIPPING/MAINTENANCE

Breakage or malfunctioning of vehicles, vessels, and equipment used to load cargo can delay delivery and generate financial losses. 90 percent of the African continent's commerce transits through ports.[10] Technologies that heavily rely on data flows–such as Internet of Things (IoT), data analytics, AI and blockchain–can help optimize predictive maintenance, avoiding or greatly minimizing supply chain disruptions due to transportation delays. Predictive maintenance triggers an intervention when it is really needed and not just when it is pre-planned.

Leading Swiss logistics company Kuehne + Nagel launched its own online platform to instantly optimize every shipment, based on the route, transit time, and cost. The logistics platform connects shippers to 20 countries and can instantly compare data from sailing schedules and rates around the world between 2,220 port pairs, 7,500 service loops, and 54 underlying carriers. This process now takes seconds rather than days, without compromising on service levels and competitive rates.

CROSS-BORDER DATA TRANSFERS AND PRODUCT TRACKING / TRACEABILITY

Tracking products through the various steps of their supply chain or tracing back their origin once they reach their destination can be done transparently, safely, and quickly using blockchain. This technology helps manage product recalls very efficiently, increasing consumer safety and reducing costs. Blockchain solutions rely on cross-border data to trace every phase of a product supply chain and can quickly and precisely identify the origin of a problem to help avoid untargeted "bulk" product recalls.

Supply chain management is extremely important to product safety, for example, in the pharmaceutical sector. The ability to track pharmaceutical products through supply chain channels, which often includes participants located in more than one country, helps advance product safety.

In response to the need for global coordination to address the COVID-19 pandemic, the World Health Organization (WHO) developed a platform to provide real-time tracking to support the planning, implementation and resourcing of country preparedness and response activities. The platform is used by over 125 countries to review and monitor the status of public health actions; highlight country resource needs (financial, supplies, and personnel) and support planning, prioritization, and monitoring of response efforts and enable real-time reporting.[11]

CONCLUSION

Cutting-edge technologies are boosting the safety, efficiency, and resilience of supply-chain management. Policies that promote the free flow of data in privacy-protective ways will enable digital technologies to support further innovation in the supply-chain sector and foster economic development globally.

Endnotes

1 According to the 2016 Global Climate Catastrophe Report, the supply chain industry faces an average of 260 major natural disasters annually.

2 Erik Sherman, "94% of the Fortune 1000 are seeing coronavirus supply chain disruptions: report," Forbes, 21 February 2020. Available at https://fortune.com/2020/02/21/fortune-1000-coronavirus-china-supply-chain-impact/.

3 https://www.bsa.org/news-events/news/bsa-urges-governments-to-support-it-infrastructure-in-covid-19-response-efforts

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5 JDA and Panasonic partner to co-innovate on integrated digital supply chain technology solutions. Available at: https://news.panasonic.com/global/topics/2019/64993.html

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9 Logility Survey Reveals the Top Supply Chain Priorities for Advanced Analytics https://www.logility.com/press-release/logility-survey-reveals-the-top-supply-chain-priorities-for-advanced-analytics/

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About the Global Data Alliance

The Global Data Alliance (globaldataalliance.org) 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. The Alliance supports policies that help instill trust in the digital economy while safeguarding the ability to transfer data across borders and refraining from imposing data localization requirements that restrict trade. Alliance members are headquartered across the globe and are active in the advanced manufacturing, aerospace, automotive, electronics, energy, financial and payment services, health, consumer goods, supply chain, and telecommunications sectors, among others. BSA | The Software Alliance administers the Global Data Alliance.

EXHIBIT 56A

Unpacking the Digital Transformation of Trade

29/11/2023

By: Craig Atkinson, CITP

Trade-enabling technology – TradeTech – makes international commerce more efficient, inclusive, and sustainable.

In this three-part series, digital trade expert Craig Atkinson, CITP addresses key questions and practical considerations related to technology-enabled cross-border interaction among buyers, sellers, intermediaries, and governments. Article based on an interview by FITT's Pamela Hyatt.

Craig Atkinson *is the Founder and Director of Lexmerca International Trade and a Trade Development Specialist with the International Trade Centre (ITC), the joint agency of the United Nations (UN) and the World Trade Organization (WTO). His roles focus on addressing legal-technical challenges that affect global trade.*

Active in the field of digital trade, Craig participates in the World Economic [illegible] *TradeTech community and in projects with multiple international organizatic institutions, technology foundations, and standards bodies.*

Academically, he is a Non-Resident Fellow with the World Trade Institute (WTI) as well as a Research Affiliate with the Singapore Management University (SMU) Centre for AI and Data Governance and the SMU Centre for Computational Law. Professionally, Craig has been a FITT Certified International Trade Professional (CITP) since 2011.

What is digitization? From documents to data?

Digitization involves moving away from paper documents – that may be authoritative with original ink signatures or stamps – toward electronic representations of what paper 'would' include.

Digitization vs Digitalization

Digitization is the conversion of analog content into an electronic form (resulting in a representation of data, information, objects, images, sounds, documents, signals, etc.).

Digitalization is the utilization of digital technology to improve processes and alter business and governance models. These changes lead to opportunities for improved coordination.

Unfortunately, it is common to conflate efforts for **digitization**, the first step in digital transformation, with 'digitalization' that follows. To really understand what **digitization** entails for trade, it is important to initially know something about **electronic data**.

As industry and government transition toward Electronic Data Interchange (EDI) or Application Programming Interfaces (APIs) between systems, many types of trade documents – financial/commercial, transport, and compliance – are being **digitized** and represented as **'digital paper'** or originating as machine-readable (*i.e.*, neither requiring extra 'keying-in' of data by people nor optical character recognition, OCR, by machines).

Digital paper formats, such as PDFs, may or may not contain machine-readable data fields (or have data appended). Among others, **directly machine-readable formats** include the **eXtensible markup language** (XML, a standardized markup language designed to define how data and information is organized) and **JavaScript Object Notation** (JSON, a standardized file and data interchange format that uses human-readable text to store and transmit data objects as tables).

> An **endpoint for digitization**, electronic data sources break the mould of thinking about 'documents' and mo

the conversation toward how '**data**' are structured and used as well as availability, quality, compatibility, and legality.

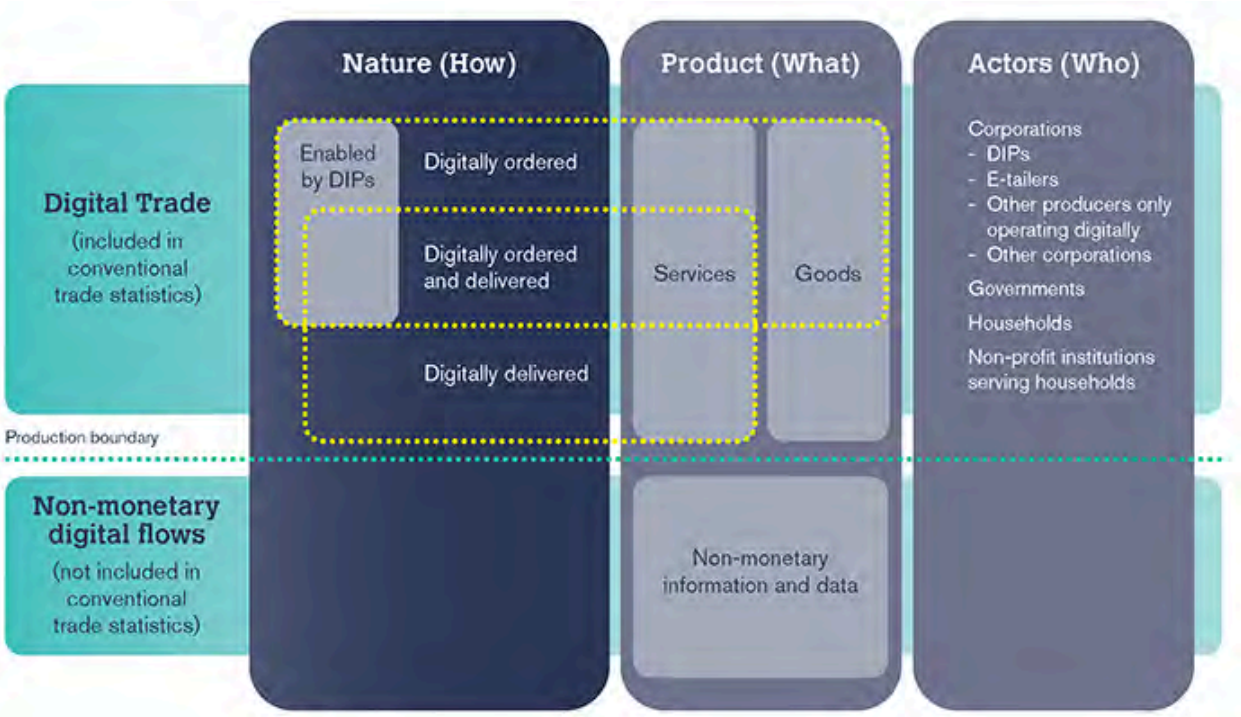
How is the digitization of trade documents taking hold in practice?

My experiences in advancing electronic business and government technology (GovTech) can help to answer this question. Since 2018, I've been an Expert with the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT). Through the international system, UN/CEFACT engages with all stakeholders in the trade community to **develop standards** and **technical guidance**.

In advancing digitization, its outputs include the **UN Trade Data Element Directory** (UNTDED/ISO 7372) as integrated into other standards, the **'buy-ship-pay'** Reference Data Model (BSP-RDM), the **Supply Chain** Reference Data Model (SCRDM), the **Multi-Modal Transport** Reference Data Model (MMT-RDM), and document representation standards for **electronic invoicing** (e-invoice) and **electronic sanitary and phytosanitary (SPS) certificates** (E-cert).

As a global forum, goods trade professionals should be aware that UN/CEFACT's standards increasingly underpin domestic electronic commerce (e-commerce) and digital trade.

The conceptual framework for digital trade



Source: IMF, OECD, UNCTAD and WTO (2023)

I also maintain a Member-Observer role in the **Universal Business Language** (UBL) Technical Committee (TC) under the Organization for the Advancement of Structured Information Standards (OASIS). Involving contributions from individuals, the private sector, and governments, OASIS develops open standards in a variety of areas, including **transportation, payments, and finance**.

For example, the UBL TC has produced an open library of trade-relevant **electronic document representations** (*e.g.*, sales invoices, purchase orders, and carnet for temporary export of goods) in XML and JSON formats. Version 2.4 of UBL was recently approved as a Committee Specification.

Several **document-specific initiatives** are emerging in parallel to these efforts, leading to a greater need for stakeholder collaboration to resolve potential **interoperability issues** between **proliferating document standards**.

For instance, the Future of International Trade (FIT) Alliance was established in 2022 by five founding members (BIMCO, DCSA, FIATA, ICC, and SWIFT). The main objectives of the FIT Alliance are to raise awareness and accelerate adoption of a standardized **electronic Bill of Lading** (eBL) across entities in ocean shipping (creating a 'universal eBL'). For trade professionals looking to engage with eBL initiatives, it's critical to consider what any bill of lading should include.

Shaping **digital standards for customs**, I also monitor the work of the World Organization (WCO) and updates to its Data Model (DM). A pillar of goods trade facilitation

for more than 20 years, the WCO DM provides structured, harmonized, standardized, and reusable sets of **data definitions** and **electronic messages** to meet operational-legal requirements at the border.

> Adapting to and utilizing such standards at **digital 'touch points'** with cross-border regulatory agencies is quickly becoming a **core competency** for trade professionals involved in compliance.

Lastly, trade professionals should follow **developments in the legal environment** at home and abroad. By committee, lawyers under the United Nations Commission on International Trade Law (UNCITRAL) have crafted model laws as templates to inspire national legislation for the **legal recognition** of electronic trade documents/data. Alongside work to map trade data elements, the International Chamber of Commerce **Digital Standards Initiative** (ICC DSI) promotes UNCITRAL instruments.

While such initiatives have largely emphasized goods trade, digitization combined with the legality of electronic communications and transacting is also needed for **services trade** when contemplating **e-invoicing**, **e-payments**, and **taxation**.

So, that's **digitization in a nutshell**. It is vital for stakeholders in the trade community – from senior leaders to newly minted trade professionals – to have a strong grasp on the nuance. The **'end-to-end' supply** of electronic data is **only as strong as its weakest link** and its availability is a **midway point**. An additional step, digitalization, is required for digital transformation to address the **manual processes** associated with cross-border interaction.

What is digitalization? Towards process improvements and systems?

A second step, **digitalization** can occur when you have requisite data sourc
form and there is no longer a need to physically coordinate the submission,
and processing of paper documents. Within disparate initiatives, **digitalizati**
process improvements – multi-layered possibilities for better coordination and automation

of procedures – that arise from using electronic data sources with digital technologies (typically through computer programming). For trade, digitalization can help businesses to anticipate costs before they're incurred and better comply with market requirements.

This implies that, by leveraging digital technologies, the potential for market expansion is significantly greater for businesses of different sizes. Digitalization can be considered the '**great equalizer**' because it means that an individual or small business may use technology to better participate in domestic e-commerce and digital trade. For digitalization-oriented approaches to work, there needs to be foundational **Digital Public Infrastructure** (DPI) in place, such as national or regional **Single Window** (SW) systems for trade.

In combination with the right public infrastructure, tools like **Digital Intermediation Platforms** (DIPs), "online interfaces that facilitate… direct interaction between multiple buyers and multiple sellers, **without the platform taking economic ownership** of the goods or rendering the services that are being sold (intermediated)" create possibilities for small enterprises to scale their international market reach to the level of businesses with fully staffed trade operations/compliance teams.

How can professionals contribute to the digital transformation of trade?

Digital transformation is as much of an endpoint as it is the **beginning of a cycle** that changes how businesses, intermediaries, and governments interact. Aside from staying aware of the various initiatives for digitization and digitalization, it's important for trade professionals to **actively contribute** given their unique experiences within different stakeholder groups.

Informing the development of infrastructure allows people to build specific tools to address the 'pain points' experienced by small enterprises. This also means that any trade professional should be able to use these tools, along with their expertise, to have the option of going 'beyond the border'.

A caveat, technology aside – I believe that businesses should always try to learn their home market first.

> Any good trade advisor will tell you it's better to prove your local market, o least operational capacity, before

making a foray into international markets.

Combining practical experiences with trade expertise, like the Certified International Trade Professional (CITP) designation, equals a path to success for businesses in this new 'digital economy'.

It's important that businesses have team members with a grounded professional background in trade before considering digital transformation or offering services.

A CITP or someone who has completed a program, like the FITTskills program, is incredibly useful for the purposes of validation within a particular community, whether business or government, related to trade.

Learn more about Single Window systems in Craig's deep dive article, part 2 in his series on digital trade technology, or TradeTech.

Disclaimer: The opinions expressed in this article are those of the contributing author, and do not necessarily reflect those of the Forum for International Trade Training.

Craig Atkinson, CITP

Craig Atkinson is the Founder and Director of Lexmerca International Trade and a Trade Development Specialist with the International Trade Centre (ITC), the joint United Nations (UN) and the World Trade Organization (WTO). Active in the trade, Craig participates in projects with multiple international organizations

EXHIBIT 56B

hinrich foundation

advancing sustainable global trade

AUGUST 2023

Leveraging electronic documents for sustainable agricultural trade

BY CRAIG ATKINSON

Contents

Introduction

Digital technology offers a solution to dismantle trade barriers and enhance the capacity of businesses, facilitating a seamless path toward efficient agricultural trade.

Envision a scenario: you own a small farm in the northeast of Brazil. Although you produce diverse crops for sale in your local state, you have ambitions of reaching markets across the country, South America, and further afield internationally. Yet, achieving this goal isn't an easy task and even selling agricultural products within Brazil involves meeting food safety testing and certification requirements.[1] How would you ensure that your goods make it across borders, avoid spoilage, and reach their intended buyers?

In comparison to most sectors, agricultural trade (or 'agri-trade') compliance with health and environmental policies is difficult. Businesses, no matter their size, must strictly comply with sanitary and phytosanitary[2] (SPS) measures: domestic and international requirements to protect against diseases, pests, or contaminants for human, animal, and plant health and safety.

Unfortunately, as important as these protections are, SPS measures can also act as technical barriers to trade[3] (TBTs) that discriminate against or create arbitrary obstacles for traders. These barriers take several forms, namely regulations, standards, and conformity assessment procedures. Totaling the costs associated with such non-tariff measures[4] begs additional questions: What can be done to increase the capacity of businesses – especially micro, small, and medium-sized enterprises, like your farm – to navigate SPS requirements? How might countries take the lead on economic, social, and environmental sustainability through agri-trade?

Agricultural businesses must strictly comply with sanitary and phytosanitary measures, which can also act as technical barriers to trade that discriminate against or create arbitrary obstacles for traders.

Digital technology can provide much-needed answers to these questions.[5] At any given time, trade documents[6] are represented by the circulation of four billion physical sheets of paper[7] that cause delays and waste of agricultural products that get 'stuck' in supply chains. An approach to solve this problem is to implement measures for cross-border paperless trade – communication/exchange of trade-related documents and data in electronic forms – to streamline business-to-business (B2B), business-to-government (B2G), and government-to-government (G2G) interactions.[8] Early, but substantive, evidence points to positive outcomes from digitally enabled agricultural trade.[9]

So, what is holding back the use of digital technologies? There are several obstacles, both legal and technical.[10] For one, governments must enshrine the legality of paperless trade at national and cross-border levels. Internationally, stakeholders must agree to, set, and follow standards for both SPS measures and digital approaches. Further, traders require access to technology and training to use it. This is occurring amidst a 'new normal': a weakened global food system reverberating from shocks like the COVID-19 pandemic, supply chain disruptions, political tension, and armed conflict. It is possible, though, that these crises have begun to propel adoption of measures for paperless trade and use cases represent key benchmarks.[11]

- To date, most efforts to resolve the challenges accompanying trade's 'paper jam'[12] have emphasized digital finance and electronic commercial documents. While these general improvements are needed to conduct payments, minimize delays, and mitigate private risk in cross-border transactions, such assurances do little to help businesses comply with SPS measures.

- This white paper argues that electronic documentation should be further leveraged to streamline agricultural trade. Overcoming issues related to SPS certificate exchange can directly contribute to the sustainability of trade in food, animals, and plants.

- It explains the unique challenges of agri-trade as well as underlying regulations and frames obstacles to the shift toward cross-border paperless trade through real-world examples of digital infrastructure and tools that ensure food safety, reduce waste, protect biodiversity, and improve livelihoods.

The unique challenges of 'agri-trade'

Agri-trade involves diverse and interconnected challenges. Primarily, agricultural goods tend to be perishable and sensitive to loss and waste.

Agri-trade involves diverse and interconnected challenges. Primarily, agricultural goods tend to be perishable and sensitive to loss and waste. The Food and Agriculture Organization (FAO) of the United Nations (UN) and the Swedish Institute for Food and Biotechnology categorize five types of waste at different stages of the 'food supply chain'.[13] The distribution stage includes all losses that occur during transportation, trade, and retail. Waste can be substantial at this stage in the chain and the FAO has indicated logistics-related losses may affect 20% of food produced in sub-Saharan Africa.[14] Beyond the resources foregone to produce agricultural goods, losses in distribution can induce scarcity of otherwise safe and nutritious food.

Another challenge is that losses are partly attributable to delays associated with SPS compliance and the outright interception of goods by customs authorities. Frequently acting as a 'barrier at the border', sanitary (for animals) and phytosanitary (for plants) measures are applied to protect from harmful additives, contaminants, toxins, or disease-causing organisms in food; to protect consumers from plant- or animal-carried diseases; to protect animals or plants from pests, diseases, or disease-causing organisms; to prevent or limit other damage from the spread of pests; and to protect biodiversity.[15] As mandatory requirements, SPS measures obligate traders to submit certificates to verify that agricultural goods conform with requirements.

Many governments struggle to find the capacity to establish electronic systems to improve SPS policy coordination among disparate public (e.g., ministries of customs, agriculture, and health) and private (e.g., authorized laboratories, standards bodies, and transportation intermediaries) stakeholders within and across countries. Stakeholders are presently disadvantaged by the sheer number and variety of SPS measures that are notified by authorities.

Overall, agri-trade plays a central role in meeting the United Nations' Sustainable Development Goals[16] (SDGs) by 2030. Though sustainability can be defined as "meeting the needs of the present without compromising the ability of future generations to meet their own needs",[17] attempting to measure it is complex and each country has its own priorities. With this challenge in mind, the Hinrich-IMD Sustainable Trade Index (STI) employs 70 indicators to measure sustainability across 30 countries according to economic growth, environmental resilience, and social development.[18]

For example, in Pakistan (ranked 29th overall in the 2022 STI) more needs to be done to reduce non-tariff barriers. For countries like Singapore (ranked fifth overall) with an efficient trading environment, the movement of agricultural products can be as much about national food security as it is about reducing losses. For all enterprises and countries, confronting their individual challenges will drive agri-trade's role in meeting the SDGs.

Global and regional frameworks

While regulatory frameworks governing agri-trade through digital technology are in place, they can either facilitate trade or become discriminatory barriers for imports tied to SPS measures.

Governments not only impose strict SPS requirements on traders but also make commitments to each other. There are at least three categories of regulatory frameworks that govern and facilitate agricultural trade though digital technology:

- Sanitary and phytosanitary (SPS) and technical barriers to trade (TBTs)
- General framework agreements on trade facilitation
- Specific agreements for paperless and cross-border paperless trade

Sanitary and phytosanitary (SPS) and technical barriers to trade (TBTs)

Since 1995, under the World Trade Organization (WTO) framework, two agreements have provided a fundamental basis for the regulation of global agri-trade: the Agreement on the Application of Sanitary and Phytosanitary Measures[19] (SPS Agreement) and the Agreement on Technical Barriers to Trade[20] (TBT Agreement).

The SPS Agreement applies to all WTO members, yet each maintains a sovereign right to set levels of health and safety protection how they deem appropriate. Though measures may be justifiable, governments can and do conceal discriminatory and protectionist requirements as 'SPS-related' import prohibitions/restrictions. Covering relevant laws, decrees, regulations, requirements, and procedures[21] (e.g., provisions on safety testing, inspection, and certification), the agreement established the WTO SPS Committee and 'disciplines' to govern how measures are to be used by countries when they establish, revise, or apply

Though described at its adoption as a milestone for the safety and sustainability of agricultural trade, the SPS Agreement is also a 'bottleneck' to trade between developed and developing countries.

domestic regulations. Members of the WTO must base their standards on science and are encouraged to use those set by international bodies,[22] the so-called 'three sisters' of standardization:

- Codex Alimentarius Commission (Codex) for food safety
- World Organization for Animal Health[23] (OIE)
- International Plant Protection Convention[24] (IPPC)

Though described at its adoption as a milestone for the safety and sustainability of agricultural trade, the SPS Agreement is also a 'bottleneck' to trade between developed and developing countries.[25] To address this and other issues, a new SPS Declaration "Responding to Modern SPS Challenges" was adopted at the 12th WTO Ministerial Conference (MC12) in 2022.[26] The Declaration instructs the SPS Committee to carry out a work program to accelerate implementation of the SPS Agreement.[27]

Complementing the SPS Agreement, the TBT Agreement defines the meaning of technical regulations, standards, and procedures related to conformance assessment. With mandatory compliance, technical regulations articulate product characteristics or related processes or production methods. Directly tied to the use of SPS measures, technical requirements are frequently updated. In 2022 alone, WTO members submitted more than 3,800 notifications about product standards and regulations.[28]

Building on the WTO's rules, every region has its own SPS frameworks, trade pacts, and 'mutual recognition agreements' (MRAs):

- The African Union (AU) SPS Policy Framework[29] was developed by the AU Commission and partners.[30] Though the African Continental Free Trade Area[31] (AfCFTA), continent-wide documentation requirements[32] are being put in place.

- There are numerous agreements that address SPS requirements the in Asia-Pacific region.[33] Using digital technologies, Association of Southeast Asian Nations (ASEAN) economies are collaborating on the delivery of SPS measures.[34]

- The European Union (EU) has internal and external agreements in place.[35] The European Commission applies SPS measures using an online platform called 'TRACES' to certify the import of plant and animal products into the EU, for intra-EU trade, and for EU exports of animals and certain animal products.[36]

- The Canada-United States-Mexico Agreement[37] (CUSMA) features a modernized SPS chapter that includes provisions on the equivalence of SPS measures, cooperative issue resolution mechanisms, and the compatibility of measures.

- In South America, MERCOSUR[38] countries use harmonized SPS measures based on international and regional standards, guidelines, and recommendations.

General framework agreements on trade facilitation

Governments also enter into general agreements on 'trade facilitation': the simplification, modernization, and harmonization of export and import processes.[39] Most importantly, the multilateral WTO Trade Facilitation Agreement[40] (TFA) entered into force in 2017 and creates special treatment for perishable goods at border crossings (Article 7.9). Countries that ratify the TFA are further obligated to use digital technology to realize certain measures. Such 'digital trade facilitation' approaches help to reduce friction (time/costs) at each stage of a product's supply chain, for and include requirements to accept electronic payment of customs duties/fees (TFA Article 7.2) and to implement a single window system (TFA Article 10.4). The impact on national economies and local livelihoods relies on the inclusivity and efficiency of such measures. Full implementation of digital trade facilitation is expected to reduce costs by over 13 percent versus a 6.7 percent reduction under minimum TFA requirements.[41]

Specific agreements for paperless and cross-border paperless trade

Other frameworks focus solely on paperless and cross-border paperless measures. While some of these measures are broadly enumerated in the TFA, there are dedicated arrangements, such as the Framework Agreement on Facilitation of Cross-border Paperless Trade in Asia and the Pacific,[42] that create additionally technical obligations for governments.

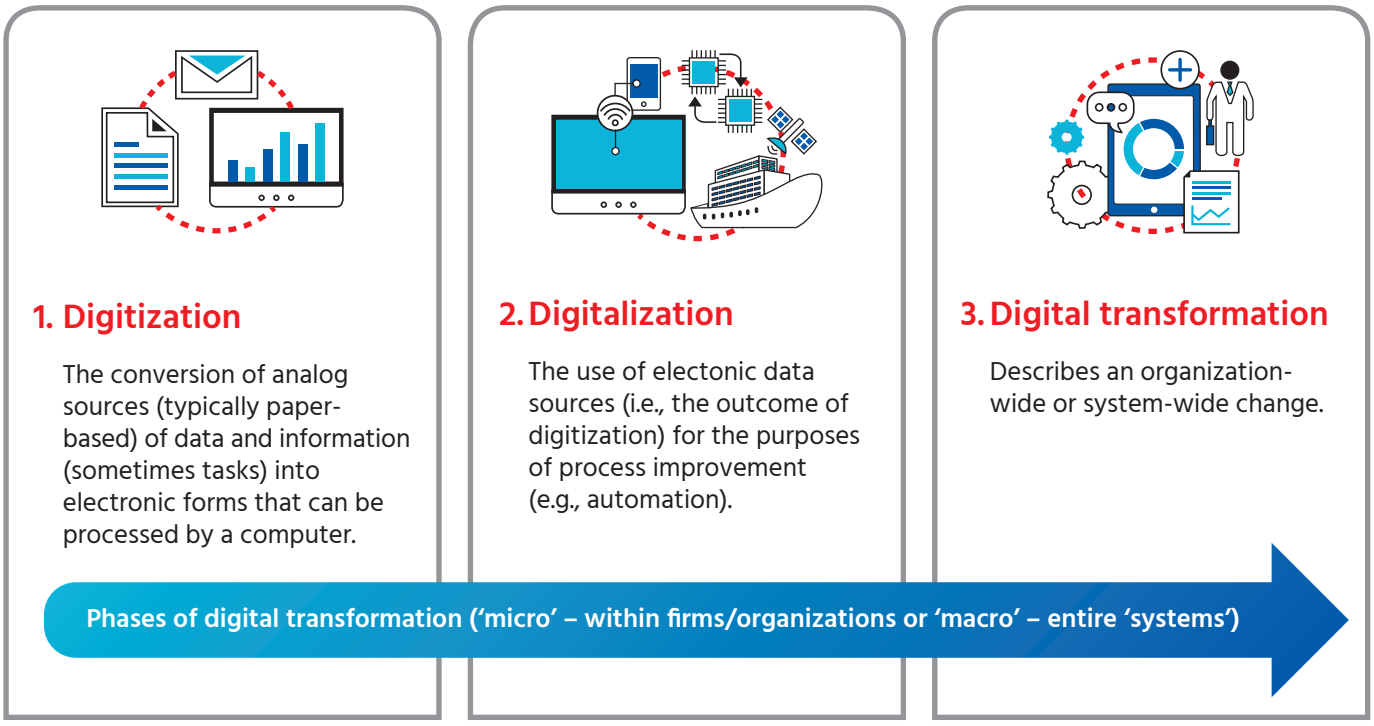
The WTO Trade Facilitation Agreement creates special treatment for perishable goods at border crossings. Signatories are further obligated to use digital technology to realize certain measures.

Digitization: Electronic trade documents

Electronic trade documents are digital representations of commercial, transportation, and compliance documents needed when conducting cross-border goods transactions. Traditionally, these documents have been in the media of paper with authenticity verifiable through wet-ink signatures, stamps, and similar methods. Although the International Chamber of Commerce (ICC) identifies seven key trade documents (i.e., certificate of origin, customs declaration, packing list, bill of lading, commercial invoice, warehouse receipt, and insurance certificate), these documents do not refer to sector-specific requirements.[43] For SPS compliance, there have been disparate efforts to create standardized forms of electronic certificates.[44]

To discuss electronic trade documents any further, it is necessary to explain the differences between the often-conflated terms 'digitization' and 'digitalization'.[45] The first stage in the process of digital transformation, 'digitization' refers to the conversion of analog sources (i.e., paper-based) of data into a digital form that can be read/processed by a computer (i.e., 'electronic' or 'digital' records/data). In contrast, digitalization refers to the use of electronic sources of data for process improvement (e.g., analytics or automation).

Figure 1 – Digitization and digitalization as stages of digital transformation



Source: Author, adapted from Verhoef et al., 2021

Despite electronic SPS certificates' benefits in agricultural supply chain traceability, trade compliance, and data authentication, their adoption has remained limited due to legal implementation and competing digital standards and systems.

From paper to electronic SPS certificates

In the context of digitization, "an electronic certificate is considered equivalent to a paper certificate, in that it contains the same information and gives the same guarantees."[46] Electronic SPS certificates 'digitize' official data (e.g., the results of testing), in a structured way so that it can be exchanged/processed by computers. Numerous digital standards exist, including the UN's 'e-Cert' SPS certificate standard.[47]

There are benefits to using electronic SPS certificates.[48] In the most basic way, electronic SPS certificates issued by an exporting country's authorities improve coordination and give authenticity/integrity to the data contained in the certificate. Approaches for electronic SPS, can enhance traceability in agricultural supply chains, lower trade compliance time/costs, disincentivize the use of fraudulent certificates, and help to create trust among trading partners.[49]

And there is 'buy-in' from international bodies. In particular, the work of the Standards and Trade Development Facility (STDF) emphasizes the wider use of electronic SPS certificates for paperless trade under the WTO TFA. Other approaches, such as the World Customs Organization (WCO) Data Model[50] and commercial document standards reinforce the use of electronic SPS certificates.

Obstacles to the adoption of electronic SPS certificates

With the ongoing implementation of regulatory frameworks, why has the uptake of electronic SPS certificates been slower than would be expected? The Organisation for Economic Co-operation and Development (OECD) cites several key obstacles to the adoption of electronic SPS certificates.

For small traders, a 'digital divide' continues to exist alongside a training gap, and there are general needs related to access and use of device technologies. For governments, obstacles manifest in the capacity to successfully implement laws and systems for electronic SPS certificates. Hurdles include mutual recognition and competing digital standards. Harmonizing electronic SPS certificate formats and procedures across countries can be challenging and lead to compatibility issues. Finally, digital technologies can give rise to needs for data governance, whether for the protection of commercial or personal information.

Close cooperation between governments, international organizations, and private sector stakeholders is needed to facilitate the transition to electronic SPS certification. Though standards underlie this progression, successful implementations of infrastructure and tools act as benchmarks.[51]

Digitalization: New infrastructure and tools

Digital public infrastructure and tools have led to faster, easier, and cheaper agri-trade. Yet, ensuring their compatibility across national borders remains a challenge.

Beyond documents, the digitalization of trade processes involves different areas and stakeholders. The first steps cover public institutional formalization and coordination, followed by establishing transparency mechanisms. This must all be reflected in 'digital public infrastructure' and tools. Whether developed by government, industry, or consortia, digital tools are predicated on the involvement of private actors – traders, transportation intermediaries/service providers, banks, and insurance companies.

The WTO's 'ePing' Platform is an example of an information system for decision making. As a free web-based tool, the e-Ping platform is a global online system that enables private and public actors to access timely information on rapidly changing product requirements, including SPS requirements. The tool provides three main functions:

1. Expediting targeted data collection
2. Delivering essential trade information
3. Sharing and cooperation among stakeholders

Another initiative, the IPPC ePhyto Solution[52] – short for 'electronic phytosanitary certificate' – encompasses an electronic equivalent of a paper phytosanitary certificate issued in a common web document format called XML (the 'eXtensible Markup Language') and a network of hub and government servers. This can directly improve trade operations, for example:

— **Fast-tracking SPS measures in Ukraine**[53] – The invasion of Ukraine in 2022 turned the need for greater SPS coordination from desirable to necessary. While engaged in the conflict, Ukraine digitized and digitalized phytosanitary certification to transition away from paper-based documents and procedures.

— **Simplifying phytosanitary compliance requirements in Uganda**[54] – In the case of Uganda, crops such as capsicum peppers may be contaminated (e.g., by fruit flies) and warrant interceptions by trading partners. To respond, an apex industry association was established to allow small producers and exporter groups to collaborate and improve exchanges with Uganda's Department of Crop Inspection and Certification. To process electronic phytosanitary certificates more accurately, timely, and with greater transparency, government plant health inspectors received tablets and computers. Key results include:
  - Submission of incorrect or incomplete documents for certification decreased by 66%.
  - Seizures of capsicum by the EU fell by over 90% (72 in 2018 to three in 2022).

Single Window systems and digitalizing agri-trade compliance

Single Window (or 'SW') systems include a variety of different platforms and environments to allow "parties involved in trade and transport to lodge standardized information and documents with a single-entry point to fulfill all import, export, and transit-related regulatory requirements... if information is

electronic, then individual data elements should only be submitted once."[55] This act of single submission of all requirements gives these systems the name 'single window'. There are national and regional examples of single window systems.

Pakistan offers a national case in using a single window to speed up agri-trade to reduce food waste and loss – the Pakistan Single Window (PSW).[56] Pakistan's exporters often faced difficulties or incurred losses connected to lengthy inspections and complex trade procedures: export inspections of fresh produce took weeks due to banks and plant quarantine departments. In making trade faster, easier, and less costly, Pakistan's exporters can now submit all required information through a single digital portal. The PSW is enhancing the conduct of agri-trade by automating cross-border operations.

Single Window recommendations: Keeping interoperability in mind

To ensure that single window systems can be developed and work in coordination between governments, stakeholders must develop a 'single window roadmap'. The first step is to create guarantees around legality of trade conducted with digital technologies (e.g., electronic transactions law), organizational mechanisms (e.g., for digital identity / entity), data models/standards so that 'what is sent is understood', and achieve technical coherence (e.g., systems able to exchange data and applications can interface).

There are successful cases of regional single window adoption. For example, inter-governmental cooperation on ePhyto between the Philippines and the ASEAN Single Window (ASW). The Bureau of Customs of the Philippines implemented the electronic Phytosanitary (e-Phyto) Certificate exchange between other members of ASEAN to digitalize phytosanitary procedures.[57] In collaboration with the Department of Agriculture's Bureau of Plant Industries and the ASW, there are measurable outcomes. The Philippines has gained 17 places in the World Bank Logistics Performance Index (LPI) and now ranks 43rd out of 139 countries.[58]

To ensure that single window systems can work in coordination between different jurisdictions, stakeholders must develop a regional roadmap.

Conclusion: The pursuit of digital transformation

Electronic documentation is a game changer for agri-trade, but there are remaining constraints to the adoption of e-SPS certificates.

For trade in general, electronic documents are a 'game changer' for businesses of all sizes. More specifically for agri-trade, electronic SPS certificates present a new basis for private enterprises to adhere to stringent healthy and safety requirements while fostering trust and transparency with governments and legitimate aims to protect health, safety, and our natural environment.

This reality is taking hold, but there are remaining constraints to the adoption of electronic SPS certificates. Most notably, governments and traders lack capacity in different ways. Understanding how to move forward hinges on knowing the differences between the digitization of trade documents and unlocking their potential through digitalization. That second step, digitalization, is where 'leveraging' occurs. Looking at existing benchmarks can help to overcome impediments to these efforts.

Ultimately, digitization and digitalization are stages that seek 'digital transformation', which is an endpoint as well as an iterative process. A more sustainable future for agri-trade requires that stakeholders from international organizations and standards bodies, governments, and the private sector come together to create legally and technically aligned measures for issuing, accepting, and using electronic SPS certificates.

Electronic SPS certificates present a new basis for private enterprises to adhere to stringent health and safety requirements while fostering trust and transparency with governments.

Researcher bio: Craig Atkinson

Craig Atkinson is the Founder/Director of Lexmerca International Trade and a Trade Development Specialist with the International Trade Centre (ITC), the joint agency of the United Nations (UN) and the World Trade Organization (WTO). Before joining the UN in 2012, Craig began his career in commercial diplomacy with two national government agencies: the Australian Trade Commission and the Canadian Trade Commissioner Service. He has also served as a consultant for the Commonwealth Secretariat and in the private sector (banking, finance, and technology).

Emphasizing international economic law, Craig holds multidisciplinary graduate degrees and has studied in Canada (Bishop's University; University of Saskatchewan), the Netherlands (Amsterdam School of International Business), and the United Kingdom (London School of Economics and Political Science). In addition, he has held academic positions in Asia, Europe, and North America. Recently, from 2020 to 2022, Craig was a Fellow with the Stanford Law School-University of Vienna School of Law Transatlantic Technology Law Forum and, in 2023, a Visiting Scholar with the Singapore Management University (SMU) Yong Pung How School of Law. At present, Craig is a Non-Resident Fellow with the World Trade Institute (WTI) of the University of Bern and a Research Affiliate with the SMU Centre for AI and Data Governance/Centre for Computational Law.

Craig's activities focus on solving legal-technical problems that affect trade. These contributions support the development of software components that go beyond analytics towards next generation infrastructure for electronic commerce and digital trade. In this context, he has participated in the World Economic Forum's TradeTech Initiative, the WTO's Enhanced Integrated Framework, UN Centre for Trade Facilitation and Electronic Business (UN/CEFACT) domains, Organization for the Advancement of Structured Information Standards (OASIS) technical committees, and Xalgorithms Foundation's Xalgo4Trade Working Group. Craig has further advised several international bodies on policy modernization issues, co-led government technology projects, and authored works for ITC, the WTO, the Commonwealth, the UN Conference on Trade and Development (UNCTAD), and the Organisation for Economic Co-operation and Development (OECD).

Craig Atkinson

Founder,
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EXHIBIT 57

Global Industry Statement on the WTO Moratorium on Customs Duties on Electronic Transmissions

The undersigned associations urge WTO members to support continuation of the Moratorium on Customs Duties on Electronic Transmissions at the WTO's Thirteenth Ministerial Conference (MC13).

Allowing the Moratorium to expire would be a historic setback for the WTO, representing an unprecedented termination of a multilateral agreement in place nearly since the WTO's inception – an agreement that has allowed the digital economy to take root and grow. All WTO members have a stake in the organization's continued institutional credibility and resilience, as well as its relevance at a time of unprecedented digital transformation.

Continuation of the Moratorium is critical to the ongoing COVID-19 recovery. As detailed by the United Nations, the World Bank, the OECD, and many other organizations, the cross-border exchange of knowledge, technical know-how, and scientific and commercial information across transnational IT networks, as well as access to digital tools and global market opportunities have helped sustain economies, expand education, and raise global living standards.

Continuation of the Moratorium is also important to supply chain resilience for manufacturing and services industries. Manufacturers – both large and small, and across a range of industrial sectors – rely on the constant flow of research, design, and process data and software to enable their production flows and supply chains for critical products.

The Moratorium is particularly beneficial to Micro, Small and Medium-Sized Enterprises (MSMEs), whose ability to access and leverage digital tools has allowed them to stay in business amidst physical restrictions and lockdowns. Failure to renew the Moratorium will jeopardize these benefits, as customs restrictions that interrupt cross-border access to knowledge and digital tools will harm MSMEs and the global supply chain – increasing digital fragmentation. As UNCTAD has explained, such fragmentation "reduces market opportunities for domestic MSMEs to reach worldwide markets, [and] ... reduces opportunities for digital innovation, including various missed opportunities for inclusive development that can be facilitated by engaging in data-sharing through strong international cooperation. ... [M]ost small, developing economies will lose opportunities for raising their digital competitiveness."

The risks of ending the Moratorium have been discussed in recent publications by the International Monetary Fund, OECD, World Bank, United Nations, and WTO, and by think-tanks in India, Indonesia, Switzerland, Belgium, and around the world. As the OECD has explained, "[t]he overall revenue implications of the Moratorium are small..., [t]ariffs on electronic transmissions would hit low-income country trade the most... Smaller and women-owned firms could be most impacted..." Other reports predict greater GDP losses due to potential implementation of retaliatory duties and note that goods and services taxes (GST) / value added taxes (VAT) are preferable to tariffs both from the perspectives of revenue collection, economic efficiency, and administrability. Countries that impose such duties also face longer-term harms due to a less predictable investment climate, reduced foreign direct investment, and reduced access to knowledge, information, and digital tools needed by local workers, artists, patients, students, consumers, and other constituents.

Finally, at a time when the G20, seeking to establish "a more stable and fairer international tax system," has formally endorsed the OECD Inclusive Framework's Solution to Address the Tax Challenges Arising from the Digitalisation of the Economy, it seems unnecessarily disruptive for the WTO membership to abandon a foundational quarter-century old agreement regarding the treatment of electronic transmissions. We also note in this regard the G7 Digital Trade Principles, which state that "[e]lectronic transmissions – including the transmitted content – should be free of customs duties, in accordance with the WTO Moratorium on Customs Duties on Electronic Transmissions."

We therefore urge all WTO members to show strong leadership and support of the digital economy by supporting continuation of the WTO Moratorium on Customs Duties on Electronic Transmissions.

Sincerely,

1. ACEA – European Automobile Manufacturers Association
2. ACTI - Asociación Chilena de Empresas de Tecnologías de Información
3. AdvaMed
4. Advertising Association
5. Africa Cloud Association
6. Africa Information & Communication Technologies Alliance
7. AINAKI - Indonesia Animation Industry Association
8. Alianza del Pacífico
9. Allied for Startups
10. American Apparel & Footwear Association
11. American Chamber of Commerce in Australia
12. American Chamber of Commerce in Brazil
13. American Chamber of Commerce in Chile
14. American Chamber of Commerce in Indonesia
15. American Chamber of Commerce in Malaysia
16. American Chamber of Commerce in New Zealand
17. American Chamber of Commerce in Peru
18. American Chamber of Commerce in Singapore
19. American Chamber of Commerce in Spain
20. American Chamber of Commerce to the EU
21. American Chemistry Council
22. AMETIC La Voz de la Industria Digital
23. ACT | The App Association
24. APPLiA
25. Asia Business Trade Association
26. Asia Cloud Computing Association
27. Asia Internet Coalition
28. Asia Pacific MSME Trade Coalition (AMTC)
29. Asia Pacific Services Coalition
30. Asociación de Internet MX
31. Asociación Latinoamericana de Exportadores de Servicios
32. Associação Brasileira das Empresas de Software
33. Association of American Publishers (AAP)
34. Association of Competitive Telecom Operators (India)
35. Association of Equipment Manufacturers (AEM)
36. AusFilm
37. Australasian Performing Rights Association / Australasian Mechanical Copyright Owners Association
38. Australian Chamber of Commerce and Industry (ACCI)
39. Australian Information Industry Association
40. Australian Industry Group
41. Australian Services Roundtable
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60. Cámara Colombiana de Comercio Electrónico
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67. Caribbean Network of Services Coalition
68. Center for International Economic Collaboration (CFIEC)
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71. Chamber of Digital Industry and Services of National Business Association of Colombia – ANDI
72. Chamber of Progress
73. China Council for Promotion of Int'l Trade
74. China Semiconductor Industry Association (CSIA)
75. City of London Corporation
76. Coalition for Digital Prosperity for Asia
77. Coalition of Services Industries (CSI)
78. Coalition to Reduce Cyber Risk (CR2)
79. Computer and Communications Industry Association
80. Confederation of Danish Industry (DI)
81. Confederation of Finnish Industry (EK)
82. Confederation of Industry of the Czech Republic
83. Confederation of Norwegian Enterprise (NHO)
84. Confederation of Swedish Enterprise
85. Consumer Technology Association (CTA)
86. Copyright Overseas Promotion Association (COA)
87. Costa Rican Chamber of Information and Communication Technologies (CAMTIC)
88. Danish Chamber of Commerce / Dansk Erhverv
89. DIGITALEUROPE
90. Digital Trade Network
91. Dominican Republic Services Association
92. Ecommerce Forum Africa

93. eco – Association of the Internet Industry
94. economiesuisse
95. E-Merchants Trade Council (EMTC)
96. Emerging Business Factory (Morocco)
97. Emerging Payments Association Asia (EPA Asia)
98. ENGINE
99. Entertainment Software Association
100. EU-ASEAN Business Council
101. Eurochambres
102. EuroCommerce
103. European Chamber of Commerce in Indonesia
104. European Chamber of Commerce in Thailand
105. European Games Developer Federation (EGDF)
106. European Roundtable for Industry (ERT)
107. European Services Forum (ESF)
108. European Semiconductor Industry Association (ESIA)
109. Express Association of America (EAA)
110. Federation of European Publishers
111. Federation of Hellenic ICT Enterprises
112. Federation of Korean Information Industries (FKII)
113. Forum for Internet Retailers, Sellers & Traders of India
114. German Chamber of Commerce and Industry (DIHK)
115. German electro and digital industry association (ZVEI)
116. German Emirati Joint Council for Industry & Commerce
117. Global Data Alliance
118. Global Express Association
119. Global Innovation Forum
120. Global Trade Solutions (South Africa)
121. Grenada Coalition of Service Industries (GCSI)
122. Hong Kong General Chamber of Commerce
123. Hong Kong Coalition of Services Industries
124. India Electronics & Semiconductor Association (IESA)
125. INDIA SME FORUM
126. Independent Film & Television Alliance (IFTA)
127. Indonesia Services Dialogue (ISD)
128. Information Technology Industry Council (ITI)
129. Interactive Games and Entertainment Association
130. The International Association of Scholarly, Technical and Medical Publishers (STM)
131. International Apparel Federation (IAF)
132. International Chamber of Commerce (ICC)
133. Int'l Generic and Biosimilar medicines Association (IGBA)
134. International Intellectual Property Alliance (IIPA)
135. IP Federation (United Kingdom)
136. Japan Association of New Economy (JANE)
137. Japan Business Council in Europe (JBCE)
138. Japan Electronics and Information Technology Industries Association (JEITA)
139. Japan Information Technology Service Industry Association (JISA)
140. Japan Machinery Center for Trade and Investment (JMC)
141. Japan Semiconductor Industry Association (JSIA)
142. Japan Services Network (JSN)
143. Johannesburg Chamber of Commerce & Industry (JCCI)
144. Joint Foreign Chambers of Commerce in Thailand
145. Kenya Private Sector Alliance
146. Korea International Trade Association
147. Korea Semiconductor Industry Association
148. Korean Broadcasters Association
149. Korean Film Digital Distribution Association
150. La Chambre de Commerce d'Industrie et d'Agriculture de Saint-Louis (Sénégal)
151. La Conférence permanente des chambres consulaires et organisations intermédiaires africaines et francophones
152. Malaysian Service Providers Confederation (MSPC)
153. Malaysia Semiconductor Industry Association
154. MedTech Europe
155. Mexican Business Council for Foreign Trade, Investment and Technology
156. Mexican Chamber of Electronics, Telecommunications and Information Technologies (CANIETI)
157. Motion Picture Association (MPA)
158. Motion Picture Distributors Association of Australia
159. Motion Picture Producers Association of Japan
160. National Association of Manufacturers (NAM)
161. National Association of Cinema Operators – Australasia
162. National Customs Brokers & Forwarders Assn of America
163. National Foreign Trade Council (NFTC)
164. National Retail Federation
165. New Zealand International Business Forum
166. Philippine Exporters Confederation (PHILEXPORT)
167. Professional & Business Services Council
168. Papua New Guinea Chamber of Commerce & Industry
169. Payments Leadership Council
170. Pharmaceutical Research and Manufacturers of America
171. Recording Industry Association of America (RIAA)
172. Retail Industry Leaders Association
173. Saint Lucia Coalition of Services Industries (SLCSI)
174. Saint Kitts & Nevis Coalition of Services Industries
175. scienceindustries
176. Semiconductor & Electronics Industries in the Philippines
177. SEMI
178. Semiconductor Industry Association (SIA)
179. Screen Producers Australia (SPA)
180. SGTECH
181. Sindicato Nacional dos Editores de Livros (SNEL) (Brazil)
182. Singapore Business Federation
183. Singapore Semiconductor Industry Association
184. Small Business and Entrepreneurship Council
185. SPADA NZ–The Screen Production & Development Association
186. Sociedad de Comercio Exterior del Perú (ComexPerú)
187. Sociedad de Fomento Fabril (SOFOFA)
188. Taiwan Coalition of Services Industries (TWCSI)
189. Taiwan Semiconductor Industry Association (TSIA)
190. TechNet
191. techUK
192. TECHNATION Canada
193. Technical Service Providers Association of South Africa
194. Technology Trade Regulation Alliance (TTRA)
195. Telecommunications Industry Association (TIA)
196. TheCityUK
197. Trinidad and Tobago Coalition of Services Industries
198. Unión Costarricense de Cámaras y Asociaciones del Sector Empresarial Privado (UCCAEP)
199. Uruguay: National Chamber of Commerce and Services
200. US-ASEAN Business Council
201. US-Bangladesh Business Council
202. US Chamber of Commerce
203. US Council for International Business
204. US-India Business Council
205. US-India Strategic Partnership Forum (USISPF)
206. US-Pakistan Business Council
207. US-South Africa Business Council
208. US Information Technology Office (China)
209. Video Games Europe
210. Vietnam E-commerce Association (VECOM)
211. World Information Technology and Services Alliance

EXHIBIT 58

February 13, 2024

The Honorable Katherine Tai
U.S. Trade Representative
Executive Office of the President
Washington, DC 20508

The Honorable Jacob J. Sullivan
Assistant to the President for National Security Affairs
Executive Office of the President
Washington, DC 20500

The Honorable Lael Brainard
Director, National Economic Council
Executive Office of the President
Washington, DC 20500

Dear Ambassador Tai, Mr. Sullivan, and Director Brainard:

We, the undersigned association leaders, urge the United States to provide its full support for the renewal of the World Trade Organization (WTO) multilateral Moratorium on Customs Duties on Electronic Transmissions at the ministerial conference in Abu Dhabi in late February. The overwhelming majority of WTO members support the renewal of this moratorium, including almost all developing countries. However, a small group of WTO members including, South Africa, India, and Indonesia, are threatening to block renewal. If that occurs, this nearly 30-year-old foundational agreement will cease to exist, as will the tremendous benefits it has yielded to U.S. industry, workers, and consumers.

Our associations collectively represent companies both large and small that employ more than 100 million workers across a broad array of sectors, including aerospace, agriculture, automotive, energy, electronics, film, music, entertainment software, financial and payment services, health, logistics, retail and consumer goods, technology, and telecommunications, among others. Our member companies view with significant concern the potential collapse of the moratorium, which is a core pillar of the WTO system. This collapse would also deal a major blow to the credibility and durability of the WTO as an institution, as it would be the first time WTO members have changed the rules to make it substantially harder to conduct trade.

Accepting anything short of a multilateral extension of the moratorium that applies to all WTO members would open the door to the introduction of new customs duties and related cross-border restrictions that

would hurt U.S. workers in industries across the entire economy. Workers in every sector rely on the constant flow of data – including design, development R&D, sales, logistics, and manufacturing information – to create new content, services, and products; to power production flows and supply chains; and to reduce carbon footprints and increase energy efficiency.

Most at risk are the 60 million American workers employed by small businesses, since small and medium-sized enterprises would find it harder to navigate these new restrictions and to bear the additional tariffs and onerous compliance costs. The failure of all WTO members to continue the application of the moratorium would also hike prices for both consumers and businesses in a period of recent inflation, and when communities and companies across our country are still recovering from the disruptions of the COVID-19 pandemic.

The end of the moratorium would also undermine ongoing multilateral efforts to eliminate discriminatory digital services taxes and restore certainty, stability, and predictability to the global tax and trade environment. Absent renewal of the moratorium, jurisdictions could begin haphazardly imposing tariffs on cross-border digital services and restart the fragmentation of the international tax system that the multilateral negotiations intend to address.

We believe it should be possible to gain consensus to renew the moratorium while at the same time being responsive to developing country concerns by providing for additional work around scope and definition issues associated with the moratorium, as well as digital trade capacity building, coupled with an annual report to Ministers. We urge the Administration to do its utmost at the WTO ministerial to ensure the multilateral moratorium remains intact and that U.S. stakeholders continue to benefit from its terms.

Sincerely,

Morgan Reed
President
ACT | The App Association

Scott Whitaker
President and Chief Executive Officer
AdvaMed | Advanced Medical Technology Association

Jennifer M. Safavian
President and Chief Executive Officer
Autos Drive America

Victoria A. Espinel
President and Chief Executive Officer
BSA | The Software Alliance
Global Data Alliance

Joshua Bolten
Chief Executive Officer
Business Roundtable

Adam Kovacevich
Founder and Chief Executive Officer
Chamber of Progress

Christine Bliss
President and Chief Executive Officer
Coalition of Services Industries

Matt Schruers
Chief Executive Officer
Computer & Communications Industry Association

Gary J. Shapiro
President and Chief Executive Officer
Consumer Technology Association

Stanley Pierre-Louis
President and Chief Executive Officer
Entertainment Software Association

Jean Prewitt
President and Chief Executive Officer
Independent Film & Television Alliance

Jason Oxman
President and Chief Executive Officer
Information Technology Industry Council

Charles H. Rivkin
Chairman and Chief Executive Officer
Motion Picture Association

Jake Colvin
President
National Foreign Trade Council

Steve DelBianco
President and Chief Executive Officer
NetChoice

Mitch Glazier
Chairman and Chief Executive Officer
Recording Industry Association of America

John Neuffer
President and Chief Executive Officer
Semiconductor Industry Association

Linda Moore
President and Chief Executive Officer
TechNet

David Stehlin
Chief Executive Officer
Telecommunications Industry Association

Ted Osius, Ambassador (ret.)
President and Chief Executive Officer
US-ASEAN Business Council

Suzanne P. Clark
President and Chief Executive Officer
U.S. Chamber of Commerce

Whitney Baird
President and Chief Executive Officer
United States Council for International Business

Att: *Global Industry Statement re WTO Moratorium on Customs Duties on Electronic Transmissions*

cc:
The Honorable Antony J. Blinken, Secretary of State
The Honorable Janet L. Yellen, Secretary of the Treasury
The Honorable Gina M. Raimondo, Secretary of Commerce
The Honorable Alejandro N. Mayorkas, Secretary of Homeland Security

EXHIBIT 59

June 14, 2022

Dear President Biden,

We urge the United States to provide strong and unequivocal support for the renewal of the World Trade Organization (WTO) multilateral Moratorium on Customs Duties on Electronic Transmissions at the ministerial conference underway this week in Geneva. As it stands, the risk is growing that just a few WTO members may succeed in dismantling the nearly 25-year-old agreement that has yielded tremendous benefit to U.S. industry, workers, and consumers.

Our associations collectively represent companies that employ tens of millions of workers across a broad array of sectors, including aerospace, agriculture, automotive, energy, electronics, film, music and entertainment software, financial and payment services, health, logistics, retail and consumer goods, technology, and telecommunications, among others. Our member companies and workers view with significant concern the potential collapse of a core pillar of the WTO system relating to the cross-border treatment of data transfers and electronic transmissions over computer networks.

Accepting anything short of a multilateral extension of the moratorium that applies to all WTO members would open the door to the introduction of new customs duties and related cross-border restrictions on the movement of data and information over computer networks and would hurt U.S. workers in industries across the entire economy. Workers in every sector rely on the constant flow of data – including design, R&D, sales, logistics, and manufacturing information – to create new content, services, and products, and to power production flows and supply chains.

Most at risk are the 60 million American workers employed by small businesses, since small and medium-sized enterprises would find it harder to navigate these new restrictions and bear the additional tariffs and onerous compliance costs. The failure to continue the application of the moratorium to all WTO members would also hike prices for both consumers and businesses in a period of surging inflation, when communities and companies across our country are still recovering from the disruptions of the COVID-19 pandemic.

The end of the moratorium would also mark the first time that WTO members have changed the rules to actually make it harder to trade. That would be a depressing marker of decline for a multilateral institution that has seen strong historic support from around the world. We believe it should be possible to gain consensus to continue the moratorium while at the same time responding to developing country concerns by providing for future structured discussions and analyses in the WTO E-Commerce Work Program, coupled with a report to Ministers. We urge your administration to do its utmost at the WTO ministerial to ensure the multilateral moratorium remains intact.

Sincerely yours,

Morgan Reed
President
ACT | The App Association

Victoria A. Espinel
President & CEO
BSA | The Software Alliance
Global Data Alliance

Christine Bliss
President & CEO
Coalition of Services Industries

Todd Thibodeaux
President & CEO
Computing Technology Industry Association

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President & CEO
Consumer Technology Association

Stanley Pierre-Louis
President & CEO
Entertainment Software Association

Jean Prewitt
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Independent Film & Television Alliance

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Charles H. Rivkin
Chairman & CEO
Motion Picture Association

Jake Colvin
President
National Foreign Trade Council

Mitch Glazier
Chairman and CEO
Recording Industry Association of America

John Neuffer
President & CEO
Semiconductor Industry Association

Karen Kerrigan
President & CEO
Small Business & Entrepreneurship Council

Ted Osius, Ambassador (ret.)
President & CEO
US-ASEAN Business Council

Peter Robinson
President & CEO
United States Council for International Business

Att: *Global Industry Statement re WTO Moratorium on Customs Duties on Electronic Transmissions*

CC:
Jacob J. Sullivan, National Security Advisor
Katherine C. Tai, United States Trade Representative
Gina M. Raimondo, Secretary of Commerce
Anthony J. Blinken, Secretary of State
Janet L. Yellen, Secretary of the Treasury
Alejandro N. Majorkas, Secretary of Homeland Security