GLOBAL DATA ALLIANCE
TRUST ACROSS BORDERS

THE CROSS-BORDER MOVEMENT OF DATA: CREATING JOBS AND TRUST ACROSS BORDERS IN EVERY SECTOR

The seamless movement of data across borders–often referred to as "cross-border data flows"–is essential to the global economy. What exactly are cross-border data flows and how do they affect you?

"Cross-border data flows" refer to the movement or transfer of information between servers across country borders. Companies need to be able to freely move data around the world so that wherever you are, you have access to the information and services you need. Everyone from individuals to large corporations relies on transferring data.

Data moving across borders is critical for the services that sustain global commerce, protect consumers from fraud and counterfeit products, improve health and safety, and promote social good.

SUSTAINING GLOBAL COMMERCE

Transforming Aviation

Digital innovation is transforming the global aviation industry. Data-driven software solutions and technologies improve customer experience and drive predictive maintenance, equipping airline companies with the tools they need to reach new heights.

- 2.7 billion passengers use Panasonic Avionics solutions each year on more than 2,500 connected aircraft. Inflight entertainment, ecommerce analytics platforms, and personalized inflight maps all help enhance the passenger flight experience and drive business value for airlines. Panasonic relies upon the rapid and seamless movement of information across the globe to provide these services to airlines and passengers.[1]

- United Airlines connects to Airbus' global cloud-based platform to store, manage, and analyze data more effectively. By analyzing real-time flight data and other performance indicators across its 4,900 daily flights, this data-driven platform helps United Airlines enhance predictive maintenance while also decreasing costs.[2]

Connecting Global Businesses

Businesses that operate globally–including hotels, car manufacturers, freight and logistics enterprises, and restaurant chains–benefit from data analytics that allow them to reach more customers, improve customer experiences, and work more efficiently. Businesses use cloud-based services to pool large amounts of data from their operations around the world to accomplish these goals.

- When international and local firms partnered to redevelop Terminal 1 at San Francisco International Airport, Autodesk's cloud-based BIM 360 Design software brought team members together. Staff from San Francisco, New York, Melbourne, New Delhi, and Dubai were able to coordinate in real time through one common cloud-based model. The ability to transfer data between countries helped studios, contractors, and stakeholders partner with their colleagues across the globe to tackle this complex project.[3]

Data transfers contribute USD $2.8 trillion to global economic activity, or 3.5 percent of global GDP, according to the Organization for Economic Cooperation and Development.

- Global retailers leverage solutions that enable them to track products and shipments from around the world. A multi-edge computing system running on Verizon's network empowers retail supply chain managers with increased visibility into the movement of their shipments. The free flow of data helps retailers locate and track products along the supply chain in near-real time, reroute shipments to avoid extended delays, and calculate accurate arrival time data based on traffic conditions and machine learning.[4]

The free flow of information around the world helps businesses connect with international customers and develop products that closely meet their needs. Companies in many industries use Salesforce software to provide employees with real-time customer insights from across the globe. This 360-degree view gives companies' R&D, supply chain, and product groups insight into evolving customer needs and opportunities.

Elevating Global Manufacturing

New digital innovations drive manufacturing today by boosting job growth and efficiency, with economic impacts as transformative as those sparked by the first industrial revolution. Powerful software-driven technologies help expand a manufacturer's strategic options–enabling companies to create new kinds of jobs, drive quality, and improve output.

- Mahindra & Mahindra, an India-based automaker, uses an end-to-end life cycle management solution from IBM to connect employees to teams and projects located across the world. From the design and initial development of a new vehicle to testing and product delivery, the ability to rapidly transfer data across the globe enables closer coordination and transparency in the development stage, helping bring vehicles to market faster and minimizing defects in those vehicles.[5]

- Headquartered in Italy, Biesse Group is a global leader in wood, glass, stone, plastic, and metal processing technology. The company relies on Siemens software to reduce errors and make product information available to all stakeholders across different business areas and roles. Centralizing company data means Biesse can share product information with 1,000 employees in China, India, and Italy. The free movement of information also facilitates collaboration with external partners, design offices, and material suppliers and subcontractors.[6]

PROTECTING PEOPLE

Fraud Detection and Cybersecurity

Detecting payment fraud offers one of the clearest examples of the benefits of cross-border data flows. Effective fraud mitigation depends on cross-border data flows as it demands sophisticated monitoring of historical payment transaction information and global or multi-country data sets.

- Mastercard's Decision Intelligence™ uses artificial intelligence (AI) to detect fraud patterns. By analyzing multiple data points, the solution helps banks make better decisions before authorizing or declining a transaction. This results in an increase in approval rates, a better consumer experience, and a reduction in the number of legitimate transactions that could otherwise be declined based on "false positives."[7]

Detecting Counterfeits

Each year, counterfeit goods cost the global economy billions of dollars–and some phony products can even endanger lives. To combat this problem, brand owners invest time and effort to track down and remove fraudulent products from the market. These efforts help ensure that the products you buy are safe and trustworthy.

- The free movement of data around the world helps brands identify the sources of counterfeit and infringing products. WD-40 Company, which manufactures some of the world's best-known brands, relies on data from e-commerce sites, webshops, social media channels, country registrars, and export and import records to aid them in their efforts to detect and take action against such products.

KEEPING PEOPLE SAFE AND HEALTHY

Enhancing 21st Century Medical Care

Cross-border transfers of personal data allow hospitals and other care facilities to use clinical support software. The software analyzes electronic health records, health insurance claims, and data sets to help caregivers improve effectiveness of medical treatments and reduce risks.

- Amgen, a multinational biopharmaceutical company, also uses real-world data to identify global and regional populations of patients whose needs aren't being met by current therapies. This allows the company to optimize selection criteria for trials, which in turn helps speed recruitment of patients and ensure relevant results. The end result: greater understanding of how well different medicines fare in helping people around the world stay productive and healthy.[8]

- Fullerton Health operates an extensive network of about 200 medical clinics in Australia, China, Hong Kong, Indonesia, Malaysia, New Zealand, the Philippines, and Singapore. The organization regards itself as Asia's largest vertically integrated health system and uses Microsoft's cloud services to integrate health care delivery across its medical network. Clinic staff can quickly and securely access shared documents, patient notes, and care plans from any device, regardless of their physical location.[9]

Feeding the World

In farming, precision agriculture techniques and collaborative software are transforming the industry and maximizing agricultural opportunity. When widely deployed, precision farming technologies can increase global crop yields as much as 67 percent and cut food prices in half. These transformative technologies rely on the movement of data gathered from thousands of sensors located across countries and regions.

- Norway-based Yara, one of the world's largest fertilizer producers, partnered with IBM to build a digital farming platform. Through the platform, which provides holistic digital services and instant advice to farmers across the globe, Yara and IBM aim to boost the efficiency, transparency, and sustainability of global food production. The initial focus of the joint work lies on farm and field data management as well as data-driven, joint innovation for farmers, which is already successfully launched in various markets across the world.[10]

- Nutreco is an international leader supporting livestock farming and aquaculture, which feed millions of consumers worldwide. AT&T helps connect each of their 200 locations in rural areas across Asia, Europe, Latin America, and North America. AT&T's global network empowers Nutreco employees to connect and collaborate securely, whether they are working in the company's Dutch headquarters or in a remote factory.[11]

PROMOTING SOCIAL GOOD

Responding to Disasters

Effective responses to natural disasters–which affect hundreds of millions of people globally each year–largely depend upon responders' ability to locate, reach, and care for affected civilians. In recent years many public and private efforts have sought to leverage data analytics to assist in disaster response and recovery.

- Intel used AI to help the Red Cross map parts of the world that are particularly vulnerable to natural disasters and epidemics. The process began with satellite imagery. An AI model developed by Intel data scientists processed the imagery on Intel hardware and identified bridges that are critical for transportation in Uganda, which is prone to both viral outbreaks and severe flooding. Intel then worked with the Red Cross to validate the dataset and upload it to OpenStreetMaps, a free, volunteer-driven, editable map of the world used by the Red Cross and other NGOs for disaster planning and response to ensure that aid workers get to

According to the U.S. International Trade Commission, fully half of all global trade in services now depends on access to cross-border data flows.

people in need–both quickly and safely. This process depends on the ability of information to freely move across national borders.[12]

- After a natural disaster, 96 percent of small businesses see revenue losses, with 35 percent experiencing losses of greater than $25,000. Visa launched Back to Business in Australia to support small businesses, and mitigate their revenue losses, as part of bushfire disaster relief efforts and community rebuilding. The tool leverages global transaction data to locate small businesses in disaster-affected areas, and points consumers to those merchants that either remain open or have re-opened for business following the natural disaster.[13]

Fostering Sustainability

Global sustainability efforts rely on accurate data from many countries. Whether scientists are tracking endangered animal populations, analyzing climate data, or combating illegal poaching and fishing, the free flow of data is essential.

- Overfishing is a significant factor in the decline of ocean wildlife populations. The UN Food and Agriculture Organization estimates one-third of all fish stocks are no longer biologically sustainable. To combat this, nonprofit

organization OceanMind uses Microsoft AI technology to map data and work with government authorities around the world to catch perpetrators. OceanMind's system has the capacity to track millions of boats across the globe and gather data from a wide range of sources to identify and report illegal fishing.[14]

Protecting Children

Sharing information across borders can help law enforcement, nonprofits, and government agencies around the world focus their resources to protect children more effectively. The important work of these organizations requires monitoring, tracking, and information dissemination around the world.

- Save the Children, a nonprofit active in 120 countries, works to give children around the world a healthy start in life. In India, Save the Children works to uplift the 30 percent of the population living in poverty. Using Oracle's cloud-based services, Save the Children India can tap into a global pool of employee specialists as candidates for their emergency-response units. Save the Children staff also rely on Oracle's cloud services for access to real-time financial data from their global locations, which helps them track grants and report outcomes to donors.[15]

ENDNOTES

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The **Global Data Alliance** is a cross-industry coalition of companies that are committed to high standards of data responsibility and that rely on the ability to transfer data around the world to innovate and create jobs. 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. BSA | The Software Alliance administers the Global Data Alliance.