

URUGUAY

Recent trends

Uruguay continues to stand out in Latin America and the Caribbean (LAC) in terms of shaping an inclusive digital economy and society. The country has made considerable efforts to enhance digital access and use for all. Internet users, active mobile broadband and fixed broadband subscriptions increased in the last decade. Uruguay rose in the E-Government Development Index from 0.56 in 2008 to 0.79 in 2018, which is above the LAC average (0.65) but below the Organisation for Economic Co-operation and Development (OECD) average (0.82). The UNCTAD B2C E-commerce Index shows that the economy's support for online shopping is still above the LAC average. This positive result is partly attributed to the development of digital banking in the country.

Uruguay is below the LAC average in digital innovation metrics. High-technology exports as a percentage of total manufactured exports increased to 7.2% in 2018 but remains below the LAC average (8.6%). Research and development expenditures as a percentage of gross domestic product increased in the past decade and are in line with the LAC average. In terms of promoting an inclusive digital society, the number of students per computer fell from 2.7 in 2015 to 2.3 in 2018 but remains above LAC and OECD averages.

National strategies and international co-operation for digital transformation

Agenda Uruguay Digital 2020 (Uruguay Digital Agenda 2020) goes beyond infrastructure and technological tools to improve and support traditional processes. It is in line with the country's strategic development goals and those of the United Nations 2030 Agenda for Sustainable Development. The digital agenda (DA) focuses on activities critical to the digital transformation of the country, such as strengthening skills, incorporating technology into productive sectors, deepening ties between the state and citizens, and relying on an enabling framework to develop the DA.

As part of the DA, Uruguay established the Digital Government Strategy 2020, which proposes a holistic vision of digital government and six areas of action: smart government, open government, efficient government, proximity government, whole-of-government and reliable digital government. The Agency for Electronic Government and the Information and Knowledge Society (Agesic) will act as promoter and incubator of proposed initiatives. To mitigate the impact of the coronavirus (Covid-19), Antel, a public telecommunications enterprise, provides free top-ups of 50 GB. Additionally, the government created the coronavirus.uy app for citizens with possible symptoms to connect with healthcare providers, to reduce wait times (CAF, 2020).

As Uruguay's DA co-ordinator, Agesic is responsible for developing the digital ecosystem, facilitating dialogue among actors in the digital transformation and promoting the development of citizen skills and the digitalisation of small and medium-sized enterprises. It promotes research and innovation in co-ordination with universities and other agencies. *Plan Ibirapitá*, for instance, provides tablets and connectivity to low-income retirees to improve social inclusion, participation and equity. *Plan Ceibal* ensures that all children in public education have an Internet-connected laptop.

In terms of international co-operation, Uruguay aims to develop connectivity, open government and open standards as part of the Digital Nations group (along with Canada, Denmark, Estonia, Israel, Korea, Mexico, New Zealand, Portugal and the United Kingdom). Through this co-operation, Uruguay has established the electronic medical history and digital signature of its entire population. Digital Nations also strives to guarantee digital rights and support to all citizens to access digital services.

Uruguay also collaborates with the European Union on the MAGIC project, which will streamline global scientific and academic co-operation. It focuses on addressing technical issues concerning system incompatibility, access and security. Through MAGIC, programmes have been created to enhance knowledge sharing, training and access to e-infrastructure.

	Digital indicators - Uruguay ¹					
	Uruguay		LAC ²		OECD ³	
Enhancing access	2008	2018	2008	2018	2008	2018
Fixed broadband subscriptions (per 100 inhabitants) ⁴	7.3	28.3	4.1	13.9	22.7	32.9
Active mobile-broadband subscriptions (per 100 inhabitants) ⁴	2009	2018	2009	2018	2009	2018
	3.3	99.0	1.8	73.5	29.8	103.6
Proportion of population covered by at least 3G network ⁵	2015	2018	2015	2018	2015	2018
	90.0	91.0	86.1	94.6	98.2	98.8
Fixed broadband speed (in Mbit/s) ⁴	2008	2017	2008	2017	2008	2007
	0.51	0.50	0.58	5.1	2.2	27.7
Strengthening their effective use	Uruguay		LAC		OECD	
E-Government Development Index (EGDI) ⁶	2008	2018	2008	2018	2008	2018
Share of Internet users (% of population) ⁴	0.56	0.79	0.52	0.65	0.72	0.82
UNCTAD B2C E-Commerce Index ⁷	39.3	74.8	25.3	67.7	65.0	84.3
Share of individuals engaging in online shopping ⁸	2015	2019	2015	2019	2015	2019
	62.6	51.4	46.4	51.5	73.9	85.0
	2017		2017		2017	
	23.5		14.8		N/A	
Enabling digital innovation	Uruguay		LAC		OECD	
High-technology exports (% of manufactured exports) ⁹	2008	2018	2008	2018	2008	2018
Share of ICT service imports, as % of total trade in services ⁷	4.8	7.2	9.3	8.6	15.6	15.1
ICT patent applications filed under the Patent Cooperation Treaty (per million people) ¹⁰	2.0	9.6	3.1	3.9	4.6	6.7
R&D expenditures, as % of GDP ¹¹	2014	2016	2014	2016	2014	2016
	0.42	0.58	0.24	0.34	29.9	38.2
	2006	2016	2006	2016	2006	2016
	0.37	0.41	0.35	0.42	1.7	1.9
OECD OURdata Index ¹²	2019		2019		2019	
	0.62		0.43		0.61	
Ensuring quality jobs for all	Uruguay		LAC		OECD	
Contributions to changes in total employment, by digital intensity of sectors, 2006-16 ¹³	2006-15		2006-15		2006-15	
	N/A		6.9		4.8	
Share of informal employment to total employment ¹⁴	2018		2018		2018	
	24.0		54.9		N/A	
Tertiary gross enrolment rate (%) ⁹	2007	2017	2007	2017	2007	2017
	50.7	63.1	37.5	60.5	66.6	74.3
Tertiary graduates by field (%) - Education ¹¹	2016		2016		2016	
	N/A		16.0		9.8	
Tertiary graduates by field (%) - Health ¹¹	2016		2016		2016	
	N/A		13.8		14.5	
Tertiary graduates by field (%) - Engineering ¹¹	2016		2016		2016	
	N/A		12.5		14.6	
Promoting an inclusive digital society	Uruguay		LAC		OECD	
E-waste generated, kilograms per inhabitant ¹⁵	2015	2016	2015	2016	2015	2016
	10.5	10.8	6.9	7.2	17.7	17.7
Number of students per computer ¹⁶	2015	2018	2015	2018	2015	2018
	2.7	2.3	2.4	1.6	1.8	1.1
Percentage of women scoring at Level 2 or 3 in problem solving in technology-rich environments ¹⁷	2018		2018		2018	
	N/A		7.7		27.7	
Strengthening trust	Uruguay		LAC		OECD	
CAF GovTech Index ¹⁸	2020		2020		2020	
	5.1		4.4		N/A	
Global Cybersecurity Index (ITU) ¹⁹	2016	2018	2016	2018	2016	2018
	0.62	0.68	0.36	0.43	0.56	0.79
E-commerce safety (%) ²⁰	2018	2019	2018	2019	2018	2019
Trust in online privacy (%) ²⁰	N/A	58.7	72.0	63.1	61.7	58.3
	N/A	45.1	52.8	54.9	41.7	45.6
Fostering market openness	Uruguay		LAC		OECD	
OECD Digital Services Trade Restrictiveness Index ¹³	2015	2019	2015	2019	2015	2019
	N/A	N/A	0.24	0.24	0.13	0.15
OECD FDI RRI ¹³	2018		2018		2018	
	N/A		0.07		0.06	

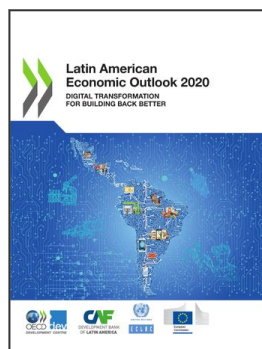
Sources, footnotes and technical details can be found at the end of the country notes.

Technical notes

1. The table as best as possible follows the seven key areas identified in the OECD Going Digital project: 1) enhancing access to digital technologies; 2) strengthening their effective use; 3) enabling digital innovation; 4) ensuring quality jobs for all; 5) promoting an inclusive digital society; 6) strengthening trust; and 7) fostering market openness (OECD, 2019a). Indicators are chosen depending on data availability for LAC countries. Potential bias exists from the way components have been aggregated on index indicators.
2. LAC average is a simple average. Composition of countries depends on availability of country data. Each average includes as many LAC countries as possible.
3. OECD average is a simple average that includes all OECD member countries as of May 2020.
4. Data from ITU (2020), *World Telecommunication/ICT Indicators Database 2020* (database). Fixed broadband speed in Mbit/s refers to the advertised maximum theoretical download speed guaranteed to users associated with a fixed broadband Internet monthly subscription.
5. Data from UN Statistics Division, UN Global SDG Database (database). Data for 2015 and 2018 or latest available year.
6. Data from UN E-government Knowledgebase (2019), *Data Center* (database). The E-Government Development Index is a composite indicator that consists of three indexes (Online Service Index, Telecommunication Infrastructure Index and Human Capital Index), which are equally weighted. It ranges from 0 to 1, with 1 being the most developed.
7. Data from UNCTAD (2020), UNCTADSTAT (database). The UNCTAD B2C E-commerce Index measures an economy's preparedness to support online shopping. It ranges from 0 to 100, with 100 being the highest support.
8. Own calculations based on data from Latinobarómetro (2019), *Libros de Códigos por País/Año* (database). Data for 2017. Data from public opinion surveys using randomly selected, nationally representative samples.
9. Data from World Bank (2020a), *World Bank DataBank* (database).
10. Data from World Bank (2020b), *TCdata360*. Data for 2012 and 2016 or latest available year.
11. Data from UNESCO (2019), *UNESCO Institute for Statistics* (database). R&D Expenditures, as % of GDP data from 2006 and 2016 or latest available year.
12. Data from OECD (2020a), *OECD.Stat* (database); and OECD (2020b). The OECD OURdata Index assesses governments' efforts to implement open data in three critical areas: openness, usefulness and re-usability of government data. It ranges from 0 to 1, with 1 being the highest score.
13. Data from OECD (2020a), *OECD.Stat* (database). The OECD Digital Services Trade Restrictiveness Index identifies, catalogues and quantifies barriers that affect trade in digitally enabled services across 46 countries. It ranges from 0 to 1, with 1 being the most restrictive. The Foreign Direct Investment Regulatory Restrictiveness Index (FDI RRI) measures four types of statutory restrictions on foreign direct investment: 1) foreign equity restrictions; 2) screening and prior approval requirements; 3) rules for key personnel; and 4) other restrictions on the operation of foreign enterprises. The FDI RRI is a composite index, which ranges from 0 to 1, with 1 being the most restrictive.
14. Data from ILOSTAT, data from 2018 or latest available year.
15. Data from the Global E-waste Statistics Partnership.
16. OECD calculations based on OECD (2020c), *Programme for International Student Assessment* (database). Data for 2015 and 2018.
17. Data from the OECD (2019d), *Survey of Adult Skills* (2018). Percentages for problem solving in technology-rich environments are computed so that the sum of percentages for the following mutually exhaustive categories equals 100%: opted out of the computer-based assessment; no computer experience; failed ICT core test; below Level 1, at Level 1, at Level 2 and at Level 3.
18. Data from CAF (2020), *The GovTech Index 2020: Unlocking the Potential of GovTech Ecosystems in Latin America, Spain and Portugal*. The GovTech Index 2020 measures the maturity of the GovTech ecosystem. It is based on 28 indicators across 7 dimensions, which on aggregate form 3 equally weighted pillars: start-up industry, government policies and procurement systems.
19. The Global Cybersecurity Index measures countries' commitment to cybersecurity at a global level. It has five pillars: 1) legal measures; 2) technical measures; 3) organisational measures; 4) capacity building; and 5) co-operation. It ranges from 0 to 1, with 1 being the highest level of cybersecurity.
20. Data from The Economist Intelligence Unit (2019), *EIU Inclusive Internet Index* (database). Indicators present perceived e-commerce safety and trust in online privacy among randomly sampled individuals in selected countries. It ranges from 0% to 100%, with 100% indicating absolute confidence in e-commerce safety and trust in online privacy.

References

- CAF (2020), *The GovTech Index 2020: Unlocking the Potential of GovTech Ecosystems in Latin America, Spain and Portugal*, Development Bank of Latin America, Caracas.
- ECLAC (2018), *Observatorio Regional de Planificación para el Desarrollo de América Latina y el Caribe* (Regional Observatory of Planning for Development of Latin America and the Caribbean), Economic Commission for Latin America and the Caribbean, Santiago, <https://observatorioplanificacion.cepal.org/es>.
- The Economist Intelligence Unit (2019), *EIU Inclusive Internet Index 2019* (database), the Economist Group, London, <https://theinclusiveinternet.eiu.com/explore/countries/performance> (accessed 11 December 2019).
- Global E-waste Statistic Partnership, website, Global E-waste Statistic Partnership, Bonn, <https://globalewaste.org/> (accessed 11 December 2019).
- ILO (2019), *ILO Statistics* (database), International Labour Organization, Geneva, www.ilo.org/global/statistics-and-databases/lang-en/index.htm (accessed 11 December 2019).
- ITU (2020), *World Telecommunication/ICT Indicators Database 2020* (database), International Telecommunication Union, Geneva, <https://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx> (accessed 21 August 2020).
- Latinobarómetro (2019), *Libros de Códigos por País/Año* (database), Latinobarómetro, Providencia, www.latinobarometro.org/latCodebooks.jsp (accessed 11 December 2019).
- OECD (2020a), *OECD.Stat* (database), OECD Publishing, Paris, <https://stats.oecd.org/> (accessed 11 December 2019).
- OECD (2020b), *Government at a Glance: Latin America and the Caribbean 2020*, OECD Publishing, Paris, <https://doi.org/10.1787/13130fbb-en>.
- OECD (2020c), *Programme for International Student Assessment* (database), OECD Publishing, Paris, www.oecd.org/pisa/data/2018database/ (accessed 14 February 2020).
- OECD (2019a), *Measuring the Digital Transformation: A Roadmap for the Future*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264311992-en>.
- OECD (2019b), *OECD Reviews of Digital Transformation: Going Digital in Colombia*, OECD Publishing, Paris, <https://doi.org/10.1787/781185b1-en>.
- OECD (2019c), *Digital Government Review of Panama: Enhancing the Digital Transformation of the Public Sector*, OECD Digital Government Studies, OECD Publishing, Paris, <https://doi.org/10.1787/615a4180-en>.
- OECD (2019d), *Survey of Adult Skills*, OECD Publishing, Paris, <https://www.oecd.org/skills/piaac/data/>.
- Open Knowledge Foundation (2019), *Global Open Data Index* (database), Open Knowledge Foundation, Cambridge, United Kingdom, <https://index.okfn.org/dataset/> (accessed 19 April 2020).
- PIAAC Expert Group in Problem Solving in Technology-Rich Environments (2009), “PIAAC Problem Solving in Technology-Rich Environments: A Conceptual Framework”, *OECD Education Working Papers*, No. 36, OECD Publishing, Paris, <https://doi.org/10.1787/220262483674>.
- UN E-government Knowledgebase (2019), *Data Center* (database), United Nations Department of Economic and Social Affairs Public Institutions, New York, <https://publicadministration.un.org/egovkb/en-us/Data-Center> (accessed 11 December 2019).
- UN Statistics Division (2018, 2015), *UN Global SDG* (database), United Nations Department of Economic and Social Affairs, New York, <https://unstats.un.org/sdgs/indicators/database/> (accessed 20 May 2020).
- UNCTAD (2020), *UNCTADSTAT* (database), United Nations Conference on Trade and Development, Geneva, <https://unctadstat.unctad.org/EN/> (accessed 11 December 2019).
- UNESCO (2019), *UNESCO Institute for Statistics* (database), UNESCO, Paris, <http://data.uis.unesco.org/Index.aspx> (accessed 20 May 2020).
- World Bank (2020a), *DataBank* (database), World Bank Group, Washington, DC, <https://databank.worldbank.org/home.aspx> (accessed 11 December 2019).
- World Bank (2020b), *TCdata360* (database), World Bank Group, Washington, DC, <https://tcdata360.worldbank.org/> (accessed 4 August 2020).
- World Economic Forum (2016), “The Global Information Technology Report 2016”, World Economic Forum, Geneva, <https://www.weforum.org/reports/the-global-information-technology-report-2016>.
- World Wide Web Foundation (2017), *OpenData Barometer* (database), World Wide Web Foundation, Geneva, <https://opendatabarometer.org/> (accessed 19 April 2020).



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