

OECD work on Trustworthy AI and on the Value of Data

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www.oecd.ai







### Values-based principles

#### Recommendations for policy makers







- Launched in June 2019:
  - builds a shared understanding of AI in the present and near term
  - maps the economic and social impacts of AI and its applications and
  - helps co-ordination and consistency in other international fora
- Report structure:

Technical landscape / Economic landscape AI applications and benefits / Public policy considerations AI policies and initiatives



Driverless vehicle



Satellite data for agriculture



Investments in AI start-ups





- Launched on 27 Feb 2020. 200+ participants & 27 speakers
- Key priorities and future contribution were articulated by governments, partner organisations, IGOs, parliamentarians and stakeholder groups

"As we collectively work to foster this public trust and confidence in AI technology and protect our civil liberties, privacy and our shared values in the application, we can all work together to realise the potential of AI technologies for the world"

– **Lynne Parker**, Deputy United States Chief Technology Officer, The White House "When discussing policies in government it is essential to be able to cite comparative materials from other countries. OECD.AI can solve this problem: the ability to learn about each countries' AI policies, online, exactly matches the needs of policymakers"

– **Makiko Yamada**, Vice-Minister, Ministry of Internal Affairs and Communications, Japan













- Objective: Share and shape public policies for responsible, trustworthy and beneficial AI
- 3 characteristics:

   multi-stakeholder
   multi-disciplinary
   evidence-based
- 4 pillars:
  - OECD AI Principles
  - Al policy areas
  - Trends & data
  - Countries & initiatives













## Domestic and international AI research collaboration: Japan $\rightarrow$ all regions, 2020

Unit
United







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2

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2

Cabinet

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Initiatives: 1

Office (CAO;

Initiatives: 1

Policy instruments by category



Policy instruments by number & budget

National strategies, agendas and plans		
Creation or reform of governance structure or public body		
Policy intelligence (e.g. evaluations, benchmarking and f		
Formal consultation of stakeholders or experts		
Regulatory oversight and ethical advice bodies		
Project grants for public research		
Networking and collaborative platforms		
Dedicated support to research infrastructures		
Emerging technology regulation		
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#### **Responsible organisations**

By initiative count V Choose visualization Japan Science and Technology Agen. The Conference toward Al Ministry of Education, Network .... Initiatives: 2 Culture, S... Initiatives: 2 Initiatives: 1 Integrated Innovation Strategy Pr... Initiatives: 2 Ministry of Internal Affairs Ministry of Land, and ... Infrastructure,... Initiatives: 1 Initiatives: 1 Ministry of Economy, Trade and In... Initiatives: 2 RIKEN (RIKEN:理研)

Culture, S...

Initiatives: 1





### The AI Wonk

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#### Government

## How the OECD's AI system classification work added to a year of progress in AI governance

Despite the COVID pandemic, we can look back on 2020 as a year of positive achievement in progress towards understanding what is needed in the governance and regulation of AI.

January 6, 2021 — 🕔 7 min read



#### Intergovernmental

A first look at the OECD's Framework for the Classification of AI Systems, designed to give policymakers clarity

November 24, 2020 — 🕔 5 min read



#### Technical community

COVID-19 and beyond: Elements of certainty can make AI ecosystems trustworthy

November 16, 2020 — 🕔 8 min read

#### Technical community



Collective and Augmented Intelligence Against COVID-19 – a decision support tool for policymakers

December 14, 2020 — 🕔 8 min read



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- Informal network of 200+ AI experts providing policy, technical & business input to inform OECD analysis and recommendations.
- Facilitates information exchange & collaboration within the OECD & between the OECD and other international initiatives focusing on AI (incl. CoE, EC, IDB, IEEE, ISO, UN, UNESCO, WB).
- Currently operates primarily online:
  - Created 3 working groups and 1 task force (forthcoming)
  - $\circ$  Each group meets virtually monthly















# A key enabler for AI – big data



### **Finance and insurance**

- Detection of fraud and assessment of risks including credit scores
- Algorithmic trading systems account for more than half of all US trades



## **Criminal justice systems and (digital) security**

- Predictive policing, and predicting court procedure outcomes
- Detection of threats in digital security and surveillance and defence



### Autonomous vehicles and smart logistics

- Firms target 2021 to deliver mostly autonomous ('level 4') vehicles
- Cost reduction thanks to optimised routes and warehouse management

# OECD work on measuring the value of data: four perspectives







# How much money do firms spend on storing data?

Estimated use of data storage hardware, software, and services, United States, 2012-2017

USD millions, current prices



Source: OECD based on (US Bureau of Economic Analysis, n.d.<sub>[11]</sub>), (US Census Bureau, 2018<sub>[12]</sub>), (US Census Bureau, 2012<sub>[13]</sub>)

# How much money do firms make from selling data products?

Estimated supply of products relating to compiling and selling databases, by industry, Canada, 2011-2015

CAD millions, current prices, basic prices



Source: OECD based on (Statistics Canada, 2019[24]), (Statistics Canada, 2019[23]), (US Census Bureau, 2017[20]), (US Census Bureau, 2012[13]).



Index of average growth of market capitalisation of "data-driven firms", 1985-2020



Source: OECD, based on data from Yahoo! Finance, October 2020.



Exports by firms in ISIC section J – Information and communication, USD billions OECD and BRIICs countries, 2015



Source: OECD based on OECD Input-Output tables (https://stats.oecd.org/Index.aspx?DataSetCode=IOTSI4\_2018), September 2020.





# Thank you!

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OECD Digital Economy Papers