Measuring the economy in the digital age

Mariana Kotzeva – Director General, EUROSTAT

Santiago, 1-2 October 2019

Digital age has brought profound changes in the economy

- Purchase of goods and services on-line is growing
- Free services such as search engines and social media are expanding
- Data are becoming a key factor for production

Digital Age poses some key questions to statisticians

- ✓ Are traditional measures robust when faced with digital transformation?
- ✓ How do we show the broad impacts of digitalisation across society
- ✓ How can we best exploit the exponentially increasing amounts of digital data for statistics?
- ✓ How can we serve our users when they have increasing access to non-official data sources?

Measuring economy in the digital age is becoming a reputational question

Bloomberg

Economics

Poloz Says Digital Revolution Warrants Caution on Rate Increases

By Theophilos Argitis
25 August 2018 18:10

Stephen Poloz *Photographer: James Park/Bloomberg*

The vast deployment of digital technologies around the world may be boosting productivity more than current statistics are measuring, giving policy makers another reason to be careful with interest rate increases, the head of Canada's central bank said.

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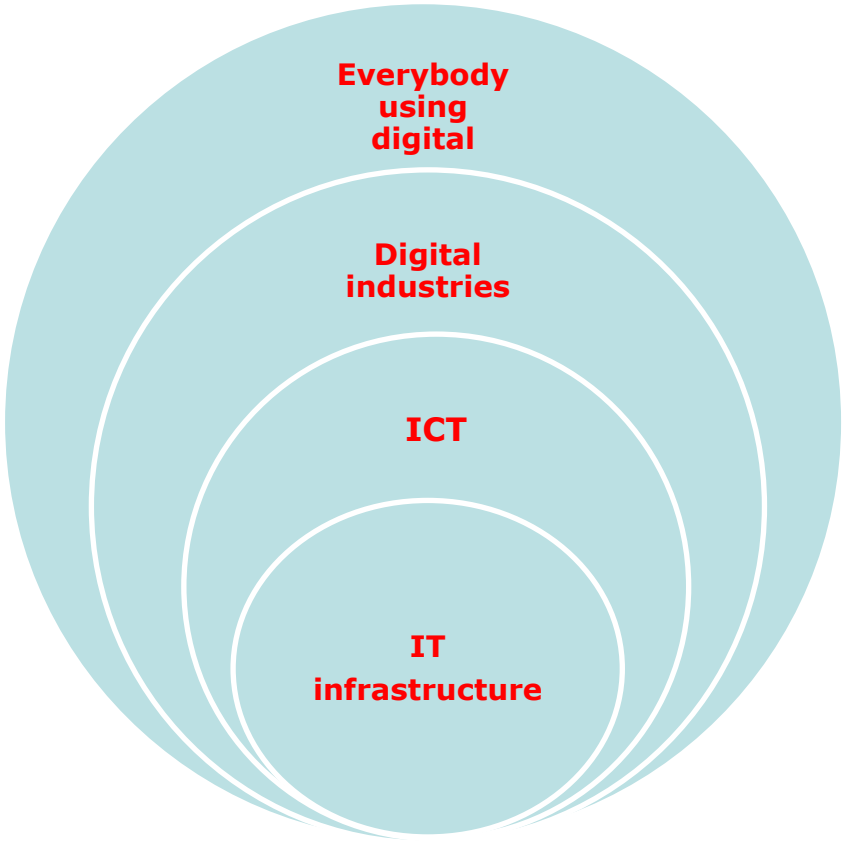
Lack of precise and universal definition is a fundamental challenge



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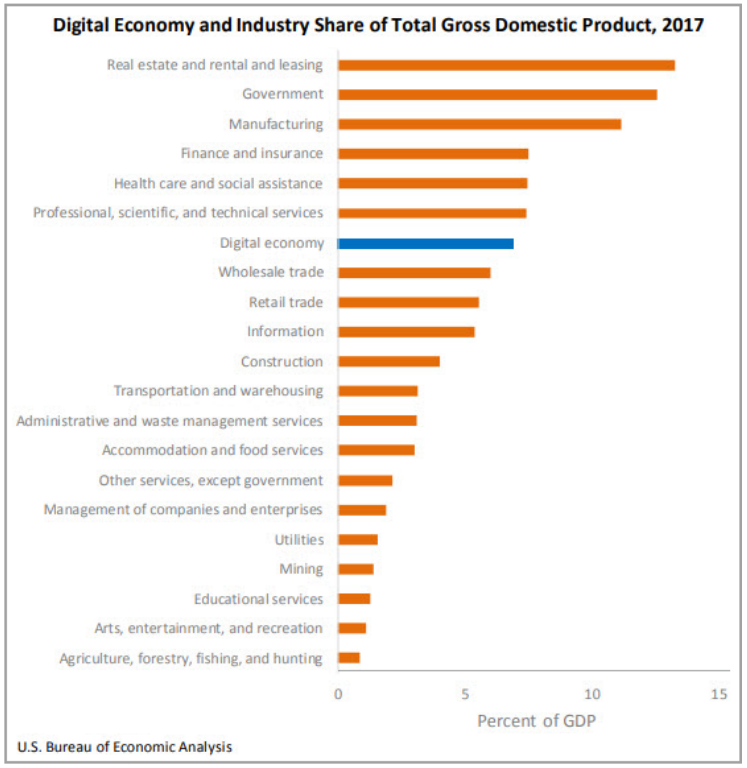
To estimate digital economy is yet another challenge

The solution:

Digital Economy Satellite Account

National initiatives towards measuring digital economy



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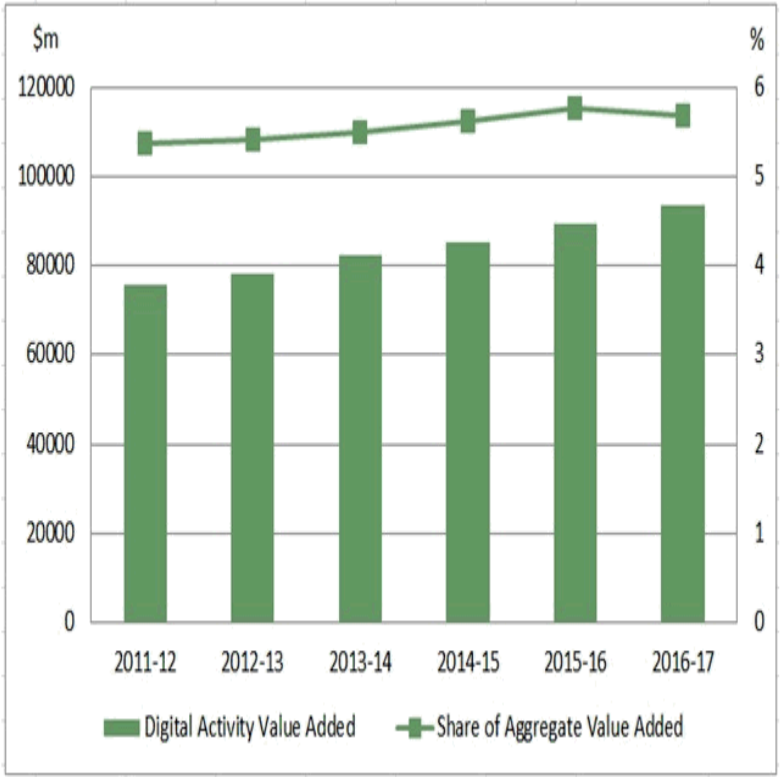

Australia

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Challenges related to the methodologies and source data

- Outdated statistical classifications
- Price changes for digital economy goods and services
- Dividing output into digital and non-digital segments
- Accurately measuring P2P transactions in shared economy

Digitalisation is high on global statistical agenda

- In March 2019 UNSC agreed on 3 strands to review relevance of SNA 2008: globalisation, digitalisation and well-being and sustainability
- Three task forces were created to deal with issues in each strand under AEG of national accounts
- Guidance notes to be provided by mid 2020 under the steering of ISWGNAs

Priority topics covered by the task force on digitalisation

- Framework for a satellite account on Digital Economy
- Valuation of free assets and free services
- Recording of data in the national accounts
- Crypto assets
- Price and volume measurement of goods and services affected by digitalisation

Challenges in the valuation of free assets and free services

- *Examples: Facebook, Google Search and Mail*

- Is there an exchange to be recorded, and at what value?
- Should they be included in the GDP?
- Are indicators of welfare from free digital products and services needed?
- Does measurement challenges require to intensify statistical cooperation across the globe?

Recording of data in national accounts

- Data as a factor of production
- Is digital data an asset?
- Distinguishing data and information
- How to value digital data-based information?

Price and volume measures in a digital world

- Price measures for digital products are challenging to produce.
- Sometimes we are even not sure what the product is.
- Price indices are potentially impacted, but also the real growth of GDP.

Measuring collaborative economy

- E-platforms linking producers and consumers
- Key issue is the accessing e-platform data for statistical purposes
- Eurostat's work with accommodation platforms:
  - **Voluntary agreements with internal platofrms**
  - **No direct access to microdata**
  - **Potential to collect at EU level and then share with member states**

Yet another challenge: where digitalisation meets globalisation

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Measuring digital transformation beyond national accounts

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New topics to be followed
Example: Cloud computing

eurostat | newsrelease

193/2018 - 13 December 2018

ICT usage in enterprises in 2018

Cloud computing services used by more than one out of four enterprises in the EU

12% of enterprises reported analysing big data and 4% used 3D printing

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Communicate statistics close to citizens

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Statistics to measure the progress of policies related to digital transformation

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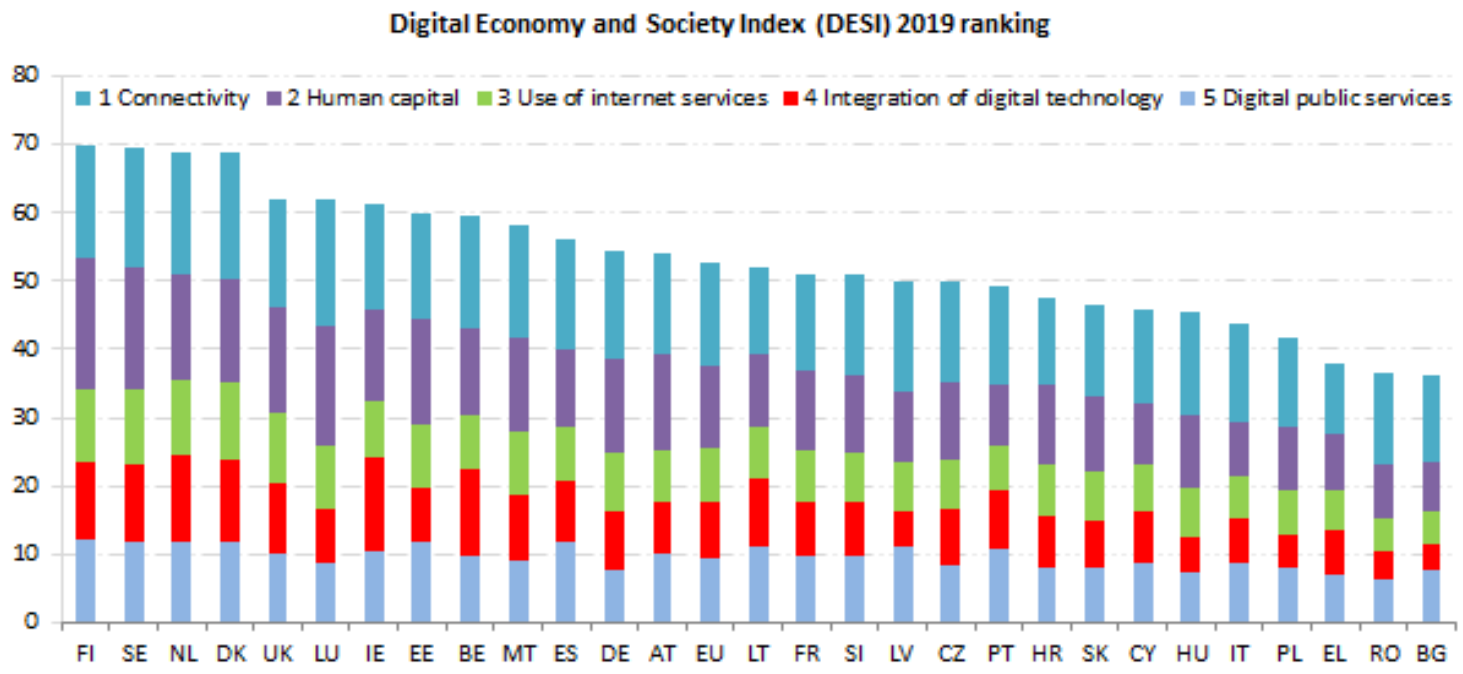
The Digital Economy and Society Index (DESI)

DESI 2019



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The next great digital revolution will be created by the combination of:

- Internet of Things
- Cloud computing
- Big data
- Artificial intelligence

Are we ready to measure the future?

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