The need for timely official statistics: the pandemic as a driver for innovation

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Statistics Netherlands

Towards smart statistics
Role of Statistics Netherlands

- Support evidence based decision making
  - By producing reliable statistics which reduces disinformation

- During the COVID-19 period there is a clear need to:
  - Produce high quality statistics
  - Produce more timely and more frequent statistics
  - Include evidence of new data sources
  - Increase the dialog with users

Let’s give some examples
1. Excess mortality

- Already existing publication
- Increase timeliness to weekly
- Speed-up internal process
- Added estimated mortality
- More detailed

2. Economy

− How is it developing?
  − Increase timeliness of Bankruptcy statistics to weekly
  − GDP quarterly, published ASAP

3. Quick insights: Scanner data

- Big Data already in house
  - Scanner data of supermarkets
  - New: Hoarding

- Enabled new data analysis
  - Run on rice, hand soap, toilet paper

3. Quick insights: Social media

- Mainly based on Twitter
  - Daily insight on sentiment towards COVID-19
  - COVID-19 symptoms spread

https://www.cbs.nl/nl-nl/over-ons/innovatie/project/corona-sentimentsindicator
4. Online purchases

− New data available
  − Insights in online purchases, monthly data
  − Debit card transactions
    − PIN in shops
    − IDEAL online

− In cooperation with ‘Dutch Payments Association’
  − Data obtained at aggregated level

https://www.cbs.nl/nl-nl/faq/corona/economie/hoe-beinvloedt-de-coronacrisis-het-betaalgedrag-
5. Dashboards

- Contributed to various (online) dashboards
- Communicate, communicate, communicate

- Important for policy makers, public, ....
  - There is an obvious need for relevant & trustworthy information

Lessons learned during pandemic

- Intensive interaction with users; what’s in it for them?
- Need for data architecture that allows flexible analyses
- Processes under control
- Culture of trial and error
- Close contact with owners of privately held data (start early)
- Communicate
- Motivated and capable staff! (worked at home!)
The future

- Important directions
  - Machine Learning and Artificial Intelligence
    - Use texts and images for official statistics
    - Methodological & quality issues
  - Always look out for new data sources
    - Be proactive, getting access takes time, quality checks
  - Dialogue with public, universities, industry, ...
    - User needs, discuss and explain privacy concerns
Thank you for your attention!!

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