Towards an sustainable open data ecosystem

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Open data ecosystem
Ecosystem
Open government data ecosystem

Open government data ecosystem

(Source: Dawes et al. 2012)
Open Data Ecosystem

• Cyclical
• Demand-driven
• Mutually dependent agents
• Sustainable

Towards a circular open data ecosystem
Open Data and the Circular Economy

Open data insights can improve decision-making regarding food production, use of resources and reducing pollution.

The European Union has made the decision to move away from the traditional economic model (take-make-consume-waste), which thrived during the industrial revolution, to the circular economic model in 2015. The circular economic model is based on the reuse of resources (e.g. products, materials), the regeneration of natural systems and to reduce waste and pollution. In other words, the circular process of the natural living world is adopted in the economy to reduce the negative impact on the environment and the health of all living organisms. The model can be divided in the biological cycle (e.g. designing of compostable packaging) and the technological cycle (e.g. reuse of phone parts). Thereby, the circular economy is dependent on cultural change. For example, subscriptions to services or products (e.g. ridesharing) are better adjusted to the circular economy than the traditional ownership of services or products (e.g. ownership of a car).

The Circular Economy in Europe

The European Commission has adopted a New Circular Economy Action Plan, which is one of the main corner stones of the European Green Deal, as of 11th March 2020. Open data can provide solutions to achieve the goals of the new strategy by improving decision-making based on data insights.

Building on the initial plans of 2015, the new strategy focuses on the design and production for a circular economy, with the aim to ensure that the resources used are kept in the EU economy for as long as possible.

According to the European Commission, the New Circular Economy Action Plan presents measures to:

- Make sustainable products the norm in the EU.
Current situation: linear process

- Creation
- Publication
- Finding
- Using
- Evaluating & Improving
From linear to circular

- Creation
- Publication
- Finding
- Using
- Evaluating/Improving
Towards a user driven open data ecosystem
Current situation: supplier driven
Status of open data in the Netherlands: domain GEO

Source: https://www.pdok.nl/rapportages
Add figure of hergebruikers in beeld

Source: Welle Donker et al. 2019

User type
Source: Welle Donker et al. 2019
Top 10 users PDOK

Source: Welle Donker et al. 2019
The state of open data in the Netherlands

Source: Van Loenen et al. 2014;2016
But there is no thé user...
Towards an inclusive open data ecosystem
Current open data ecosystem

Exclusive:
1. open government data only
2. government (data provider) driven
Open government data ecosystem

(Source: Dawes et al. 2012)
Towards an inclusive OD ecosystem

• Involve NGD (users)
Inclusive: users should participate

1. Non-involvement: no user involvement and thus completely supply-driven open data policy.

2. Information: official policy documents on (supply of) open data, vision or strategic documents, lists of government-held data sets, awareness-raising efforts regarding organization’s open data, newsletters.

3. Consultation: social media channels, feedback mechanisms (e.g. commenting function), correction mechanism (possibility to suggest corrections).

4. Placation: public events (e.g. hackathons), possibility to request information/data.

5. Partnership: user groups (giving advise on what to supply), planning committees, partnership with private sector.

6. User control: veto mechanism, integrated user group who are part of the public sector body, correction mechanism, right to request information as open data.

Source: Olausson, 2016
Towards an inclusive OD ecosystem

• Involve NGD (users)

• Open the OD infrastructure to non government open data (NGD) (providers) and/or vice versa

• European strategy for data: a single European data space
A sustainable open data ecosystem is

- User driven
- Circular
- Inclusive
References

• Welle Donker, F.; Braggaar, R.; van Loenen, B. (2019). Reusers of open data in the picture (Hergebruikers van open data in beeld). Research commenced by Dutch Ministry of Internal Affairs and Kingdom Relations
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Open Data Life Cycle workshop
October 30, 2020

Register at:
https://www.cognitoforms.com/TODOWorkshop/TODOOpenDataLifeCycleWorkshop
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