Valuing data

Challenges and opportunities in realizing the value of data for development
Outline

1. Background: Underpinning research and evidence
2. Key Findings: Characteristics and conditions in which data become valuable
3. Case study: The creation, capture and distribution of value in the transportation sector
4. Policy recommendations for CTSD and Member-States: Measuring and maximizing value creation for individuals, private actors and economy as a whole
1. Background
2. Key Findings: Characteristics and conditions in which data become valuable
What are data?

Data are the new oil! NOT
## Economic and informational lenses on the social value of data

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See Coyle et al 2019
A closer look at positive externalities
Key conclusions on features of data that affect their value

- ‘Market solutions’ by themselves are inefficient
- Social and private value diverge & some valuable uses are non-monetizable
- Value lies in use, and there are heterogeneous use values
- Data have a relational character. This means that solutions cannot all be individual. There is also a danger of foreclosing valuable uses

- So then, what do these features imply for governance and policy choices?
3. Case study: Unpicking value creation and distribution in data use in urban transport
Data and Transport: Opportunities for the SDGs and value creation

- Transport is a critical aspect of making cities and human settlements inclusive, safe, Mobility, and associated transportation infrastructure and human settlements inclusive, safe, resilient and sustainable.

- There are multiple levels at which data can create value in transport, which can be complementary and/or competing:
  - The individual
  - The firm level (e.g. private providers, third-party information applications)
  - The aggregate or geographical area (e.g. around congestion and environmental outcomes)
With an increasing focus on ‘digital by default’ and mobility as a service, data are being integrated into urban transport services in multiple areas:

- At the point of service, e.g. automated fares, smart cards and smart phones with opportunities for personalisation
- Through data-based systems, e.g. the combination of smartcards GPS-enabled vehicles, intelligent transport systems
- In decision-making, often informed by the use of smart cards and automated fare systems
Data and Transport: Conditions and trade-offs around data capture and distribution

- An information lens highlights:
  - The importance of interoperability (e.g. financial and transport data)
  - Areas with high demands for real time, accurate and granular data
  - Trade offs in value for individuals, firms and in the aggregate

- An economic lens highlights:
  - Excludability (e.g. via concentration of data by a few firms)
  - Negative externalities affecting individual and firm level value creation (e.g. around congestion)
  - Costs (e.g. linked to the physical service and willingness to pay)
Conditions and features affecting the value created through data use in urban transport reveal the need for governments to consider:

• Explicit effects to mitigate inequality and exclusion, including place-based

• Recognizing and managing trade-offs between public and private value

• Challenges for individuals linked to both visibility and invisibility in data sets

• The importance of coordination
4. Policy recommendations for CSTD

- **Supporting research into the scale and distribution of costs** of data use, especially in developing country contexts, as well as options for balancing costs with value distribution.

- **Facilitating open dialogue between governments and with civil society on approaches** by government to positive and negative externalities, comparing ‘what works’

- **Capitalizing on linkages with other UN bodies and civil society** to better understand and mitigate inequalities for historically marginalized groups

- **Providing advice** on the identification and use of appropriate indicators for economic and social value creation through data
4. Policy recommendations for Member-States

- Recognizing the importance of **coordination** across government departments as well as with the private sector and civil society to realize social value through data use

- Explicitly seeking to identify and support those who are likely to be excluded from data-driven services, **promoting inclusive design**, and ensuring meaningful alternatives exist

- Considering both **context and use case** in the set up and use of data in public services

- Working with researchers, civil society, other member-states and the private sector to better understand **trade-offs and complementarities** in value creation, and using this to inform regulation and public sector support