Legitimacy Tensions of Mobile Network Operator Data Sharing for Official Statistics: Lessons learned from the Netherlands and Finland

Sofie de Wilde de Ligny[1]*, Iryna Susha, and Koen Frenken
Copernicus Institute of Sustainable Development, Utrecht University, The Netherlands

Abstract

National Statistical Offices (NSOs) show a growing interest in the use of privately held data (e.g., scanner data, satellite data, financial transaction data) to enhance the timeliness and granularity of official statistics, but also to explore new statistical opportunities [1]. As a result, partnerships with Mobile Network Operators (MNOs) have emerged as a prominent model within Business-to-Government Data Sharing for Statistics (B2G4S) [2,3]. While these partnerships promise new and timely statistical opportunities (e.g., tourism in and outbound, population measurements), they also raise concerns related to privacy, legal compliance, and public trust [4]. In this context, legitimacy - understood as the perceived appropriateness and justification of certain practices - becomes a key analytical lens to understand the tensions of such partnerships.

As such, this research investigates the question: *How do different assessments of legitimacy of MNO data sharing partnerships unfold in B2G4S over time, and how do they shape the dynamics of the partnerships?* To explore this, we analyze case studies of two NSOs in the EU engaging with MNOs in data sharing partnerships, one in the Netherlands (CBS) and one in Finland (Tilastokeskus). Subsequently, we draw on semi-structured interviews, document analysis, and participant observation in project activities, aiming to capture the legitimacy assessments across various audiences, such as NSOs, businesses, governmental institutions, and media. That's why we make a distinction between internal legitimacy (acceptance within NSOs) and external legitimacy (acceptance by other actors) [5].

Our analysis draws on institutional theory to conceptualize legitimacy in data partnerships. In order to do so, we will draw upon the work of Rasche et al. [6], who describe a framework that specifies criteria for assessing the legitimacy of data partnerships with regard to input (i.e., transparency, participation, deliberative quality) and output (i.e., outputs and outcomes) legitimacy. In addition to that, we draw upon the framework of Deephouse et al. [7] to identify how various audiences assess

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the legitimacy of a data partnership based on different criteria (i.e., regulatory, pragmatic, moral, cultural-cognitive) that both converge and conflict over time. Since this study identifies legitimacy tensions, building upon the work of Deephouse et al. [7], we understand legitimacy in B2G4S data sharing as the perceived appropriateness of a data sharing practice to a social system in terms of rules, values, norms, and definition. Hence, we understand legitimacy tensions as contrasting assessments of legitimacy by various assessors within a B2G4S data sharing practice. These assessments are not static; they evolve through aspects such as temporal conditions (e.g., COVID-19), institutional decisions (e.g., governance structures), changes in regulatory frameworks (e.g., GDPR), and public controversies (e.g., location data ethics). We show that the different legitimacy assessments are not just something that needs to be taken into account while establishing data partnerships; it is something that develops and changes over time, and it actively influences how these partnerships are set up, managed, and whether they become stable or eventually fall apart.

By unpacking how legitimacy assessments unfold over time and how they shape the dynamics of partnerships, this study contributes to a deeper understanding of the social and institutional tensions inherent in B2G4S initiatives. The findings highlight the importance of building legitimacy not only through compliance or performance but through continuous negotiation among various audiences in a social system with diverging values and mandates. In doing so, this study contributes to both an academic and practical level: it offers a framework for analyzing the various assessments of legitimacy in data partnerships in B2G4S, and it provides actionable insights for NSOs seeking to navigate the evolving landscape of data sharing practices.

Declaration on Generative AI

The author(s) have not employed any Generative AI tools.

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