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Open Government Data Initiatives: Open by Default or Publishing with Purpose

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Abstract

Over the last decade, after a set of Open Government Data (OGD) principles were developed, governments around the world started to radically change their culture on data governance. However, at the implementation stage of OGD initiatives governments needed to consider whether publishing the massive quantities of open datasets did meet public needs for use and re-use, in view of the enormous investment and resources put into the production of publishable OGD. This research-in-progress adopts an exploratory case study approach combining it with a narrative literature review to investigate how the “Open by default” principle and the “Publishing with purpose” strategy were involved in facilitating OGD usage and public participation. The study’s goal is to overview the current implementation of OGD initiatives and to explore best practices when working with open data. We expect to present a new logic model or to show the modification of existing government organisational logic models by analysing the findings on the nature of the New Zealand government effort in opening data up relates with the possible advantage experienced by the government and the public at large.

Keywords: Open Government Data initiatives, open data, Open by Default, Publishing with Purpose, organisational logic model.

Open Government Data initiatives: Open by Default or Publishing with Purpose

1. Introduction

The concept of open data is introduced in the Open Data handbook by The Open Knowledge Foundation (O. K. Foundation, 2009) as “*Open data is data that can be freely used, reused and redistributed by anyone – subject only, at most, to the requirement to attribute and share alike*”. The goal is not only to promote transparency, efficiency and public participation but also to gain social and economic benefits. In an executive order issued by the USA President in 2013 (White House, 2013), it is postulated that the most significant benefit of open data is the provision of information resources that are freely available, easy to find and accessible as open data has high value when shared, and little or no value when locked (Janssen, Charalabidis, & Zuiderwijk, 2012). Furthermore, the value enhancement of open data based on their granularity, accuracy and congruence may contribute to creating new product and service offerings, coupled with a higher level of accountability (McKinsey, 2014). Of specific importance in the last years has been the demand for Open Government Data (OGD). As per the definition found in the OECD working paper (Ubaldi, 2013) OGD are produced by governments with public funding as a set of policies that aim to boost transparency, accountability and value creation. However, there have also been concerns about how to open government-produced data in order to maximise the benefits of their usage. All levels of government agencies ought to develop policies and processes to unharness relevant, accessible, and beneficial open data to encourage innovation, foster a better-informed public, and build economic opportunities. Moreover, OGD will create a crucial distinction in promoting business innovation and the development of innovative services both within and outside the government that provide and use the data.

The six principles below were elaborated upon by governments, experts, and community stakeholders in order to derive an agreed set of global standards about how to publish OGD (Charter, 2015):

1. **Open by Default:** All government agencies establish a culture of data openness. Data should be readily available to the greatest extent possible.
2. **Timely and Comprehensive:** Release data without undue delay in order to keep their relevance.
3. **Accessible and Usable:** Publish data in a machine-readable format in order to facilitate easy public access for analysis and reuse.
4. **Comparable and Interoperable:** Meeting the agreed data standards will ensure the quality of the open data sets and will increase their value potential.
5. **Improved Governance and Citizen Engagement:** Open data promote information sharing between governments and the public, increase public trust in governments, and promote public participation in decision making.
6. **Inclusive Development and Innovation:** Open data can allow users to innovate and create new social and economic value by integrating OGD with other data.

Following government adoption of the six charter principles, the Open Data Charter was reviewed in 2018. There was a consideration of the core principle “Open by default”; concerns were expressed that adhering to the principle may put too much pressure on governments to open all their data without considering data quality, and disregarding security considerations. It was also suggested that it could be more useful to publish data targeting specific problem

domains, or aiming to provide specific public benefits. These reflections resulted in the Open Data Charter 2018 Strategy (Charter, 2018b) that emphasised on “Publishing with purpose”, by driving open data efforts towards delivering an impact. However, the strategy of “Publishing with purpose” raised questions about the approaches towards identifying what data were needed, who might use the data, and why (ODI, 2019).

Current research has investigated to a significant degree how governments shaped their OGD initiatives, focusing on their purpose, and the implementation of data openness. However, less attention has been paid to the causal connection between the effectiveness of the government approach to the OGD principles, and the outcomes achieved by governments (as the data providers) and citizens/organisations/communities as (the data users). The study presented in this paper is part of an ongoing research that explores the process of opening and publishing OGD that involves the internal systems of the government agencies and aims to fulfil public needs. More specifically, this paper investigates how the “Open by default” principle and the “Publishing with purpose” strategy were adopted in various OGD initiatives.

2. Research background and objectives

The nature of the ongoing research study is exploratory as it focuses on current OGD initiatives, rather than on drawing inferences from the findings of prior research. More specifically, the study’s research question is how the “Open by default” and the “Publishing with purpose” strategies were involved in facilitating New Zealand OGD usage and in attracting public participation aligned with social-economic motivation. It investigates New Zealand OGD initiatives through a case study approach. In particular, rather than evaluate in detail the performance of the New Zealand OGD initiatives, it looks into how the current OGD initiatives adopted the open data publishing principles in order to provide best practice guidance. As a result, we aim to propose a new organisational logic model or a modification of the existing organisational logic model related to the OGD initiative.

3. Related work

3.1 Open Government Data initiatives

The Open Data Charter proposed the Open data framework (Charter, 2018a) in figure 1 as a means to underpin government effort in developing OGD programs. The framework highlights two overarching premises: (1) High-quality production and management of data are required for data sharing, and (2) To enhance benefits, the public as users need to be able to process, use and re-use published data.

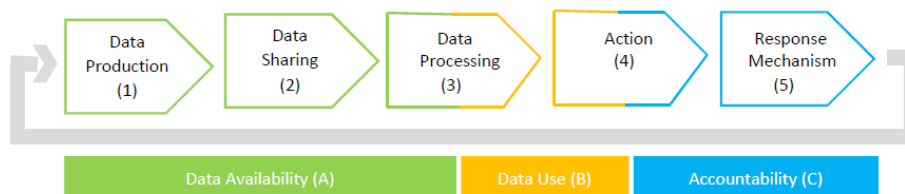


Figure 1. The framework of open data use and impact. Adapted from (Charter, 2018a)

Based on Verhulst and Young (2017), figure 2 presents the six characteristics of open data that are especially relevant in the context of developing economies. Scrutiny, for instance, refers to the provision of details that enhance data quality while flexibility refers to providing a data format that allows repurposing and reusing data in a different context. Another feature, trust, can bring higher levels of accountability and transparency.

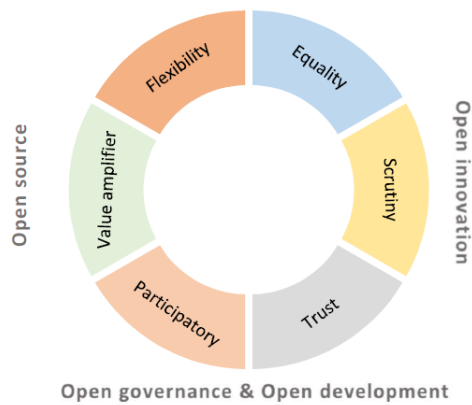


Figure 2. The characteristics of Open Data. Adapted from (Verhulst & Young, 2017)

The implementation of OGD by different government agencies with regards to sharing public data internally and externally presents challenges in terms of work culture transformation and promoting systemic and structural reforms (Matheus & Janssen, 2019). Focusing on the “Open by default” principle, The Open Data Barometer Leader report (World Wide Web Foundation, 2018) posited that having an open government data initiative and an “open by default” policy was not enough to bring open data up to the point of stimulating creative use. It involves complex shifts to both government culture and systems to adopt the “open data by default” principle. Furthermore, to ensure that the principle can be well adopted, these indicators are needed: sufficient resources, appropriate government policies, and a Right to Information (RTI) and protection framework.

Considerations about applying the “Publishing with purpose” strategy start with the monitoring of how the six Charter principles have been adopted globally (Charter, 2018b). After several decades, governments implemented OGD initiatives; however, organisations advocating the OGD initiatives realised that most of the open data implementations were not driven by user demand, and often ended up with merely opening data up without considering other factors such as data timeliness, accessibility, and comparability.

Taking in all implications, a paper by Crusoe, Simonofski, Clarinval, and Gebka (2019) concluded that most open data published today are hugely underused. Some scholars (Styrin, Luna-Reyes, & Harrison, 2017) compared three country open data ecosystems and found that the potential impact of the OGD initiatives highly depended on the political leadership (W.W.W. Foundation, 2019), on the active OGD initiative promotion, and on the incentives offered by the government. A recently published paper (Wang & Shepherd, 2020) examined in detail information about the United Kingdom Open data - a leader in OGD movement. Sampling the most popular dataset offerings, they found that only 15% were open from the perspective of the ordinary citizen, equating to 0.05% of the population of all datasets available at the UK OGD portal (data.gov.uk). Moreover, approximately 6 out of 10 datasets did not contain granular data, while 4 out of 10 data sets were significantly aged (more than 30 months old). The investigation revealed that the UK OGD initiative did not meet the open data charter principles 2, 3 and 4.

3.2 New Zealand Open Government Data

The data portal data.govt.nz was launched in 2009. The site acts both as a portal and as a citizen engagement platform, to make non-personal government-held information more discoverable, usable and relevant (NZDIA, 2009). The portal is not a data repository rather it is a catalogue of existing government agency websites. Based on interviews, a web survey, literature sources,

and comparisons with other government portals, an independent review published in 2011 (Stott, 2011) concluded that although the portal was well designed and was professionally ran, the datasets were still under-used, and were insufficiently well known internally and externally. Responding to the recommendations provided in the review report, the New Zealand government set up a regularly updated open data action plan supported by an implementation plan then was monitored by conducting a quarterly assessment. The main challenges for the New Zealand government in implementing the open data action plan were the shift to a sustainable open data culture and the reluctance to support and use open data, the lack of appropriate government agencies and user capabilities, and the difficulties related to delivering data from different sources and in different formats (StatsNZ, 2018).

To ensure high-quality open data, the principles for managing New Zealand government data and information were approved by the New Zealand cabinet on 8 August 2011 (Cabinet, 2011). It was postulated that data should be open, protected, readily available, trusted, well-managed, reasonably priced (preferably free) and reusable. The commitment was reaffirmed in the National Action Plan 2018-2020 (NZSSC, 2018).

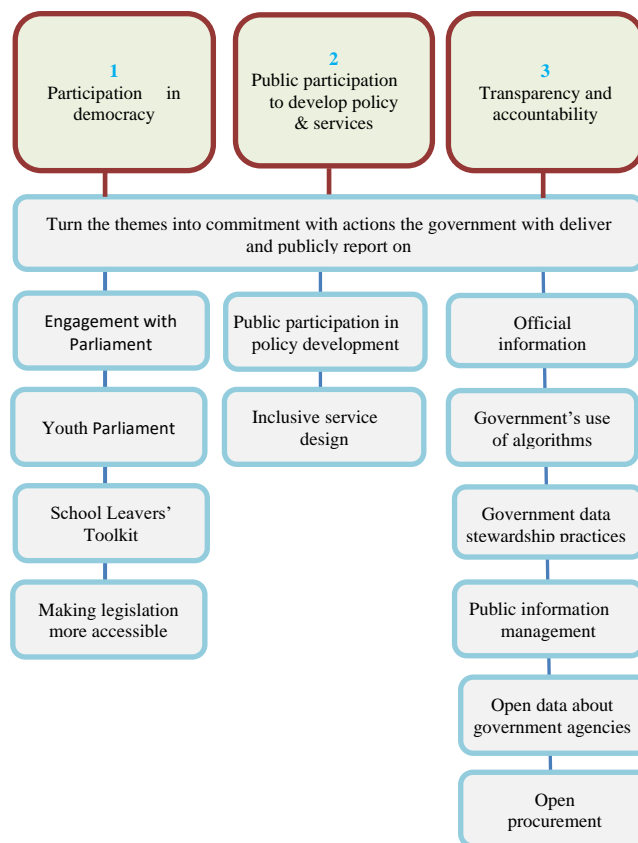


Figure 3. The National Action plans 2018-2020 themes. Adapted from (NZSSC, 2018)

Figure 3 depicts the three themes of the plan (NZSSC, 2018), including government commitment. The plan was developed with the input of engaging citizens and community groups; the comprehensive discussions resulted in 449 ideas which were incorporated into these three themes.

4. Study methodology

The ongoing study follows an exploratory case study approach that allows to present multiple perspectives on OGD actors, activities, policies, and documents. The issues identified are the

results of interpreting the data gathered from study participants, in the light of the information gathered from OGD related policies and other documents. The study was designed to include a two-stage data collection process. At the first stage (in 2019), data were collected by semi-structured interviews with participants from 10 government agencies and organisations in New Zealand. The second stage involved collecting data from the New Zealand OGD reports. To address the research question (see section 2), semi-structured interviews employing open-ended questions were used; these interviews were often accompanied by follow-up “why” or “how” questions. The interviews were conducted with one participant at a time for about 40 – 50 minutes at their office premises or using virtual sessions.

The participants were either government officers or employees in organisations that collaborate in OGD programs. The participants were selected for their expertise and experience about OGD implementation and use in New Zealand. All participants had technical skills related to OGD and were knowledgeable about the ways the data were used within their respective organisations.

Overall, the research design was iterative and began with a review of the literature in order to understand what was previously investigated and currently implemented, followed by the interviews with experts in OGD; the data from those interviews are currently being coded. To increase the accuracy in interpreting the qualitative data, a thematic analysis approach including the inductive coding will be applied (Boyatzis, 1998; Saldaña, 2015).

5. Summary and expected results

In this paper, we review the literature in order to analyse current research in OGD initiatives and the implementation of the New Zealand OGD plan. We expect that the study will contribute essential insights on how OGD initiatives can best move forward, by exploring the case study of the New Zealand OGD initiatives, and proposing a new organisational logic model (or a modification of the existing one). More specifically, the study will identify and compare the factors influencing the adoption of “Open by default” or “Publishing with purpose” principles, and the expected outcomes of each strategy. Currently, we are analysing the qualitative information gathered from the case study findings and the narrative literature review in order to obtain comprehensive answers to the research questions. The continuing analysis that will lead to the development a business model of organisations using OGD is part of our future work.

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