

# Open data as a public asset

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## Abstract

*The disclosure of data is often accompanied by many promises from an open government standpoint that use catchwords such as transparency, participation and engagement, not to mention innovation, viewing such data as a raw material that could be used by old and new companies to create and improve services. Although these promises effectively represent the potential of open data, in actual fact, they prove very difficult to accomplish. The delays, or rather the hurdles, that stand in the way of these data's use are multi-faceted: cultural resistance to sharing data, legal constraints and issues with creating sustainable updating processes. By retracing the steps of open data, this article highlights these issues, proposes courses of action and suggests considering open data as a common good: a resource shared by all the members of a community and from which everyone can benefit.*



## Introduction

"I could have certainly done more, especially regarding the statistical aspects; however, in our country both private and non-profit organizations show reluctance relying on public domain for data, facts and content" (C. Battisti, 1898).

So reads the preface of Cesare Battisti's geography and anthropology book, *Il Trentino*, published in 1898. Although this text is over 100 years old, its words still ring true.

People who need data to write reports, inform, make decisions, etc. have always had to use up a lot of energy to obtain them.

Over time the situation improved, thanks to the arrival of data sharing policies that overcame all these hurdles and also thanks to advances in the technologies which now enable anyone to collect data.

Enter **OpenStreetMap**. In 2004, student Steve Coast, fed up with having to ask Britain's mapping agency, Ordnance Survey, if he could reuse its geographical data, proposed a collaborative collection of this type of data with the aim of promoting any type of reuse – in this first instance, the creation of a free world map. Fifteen years later, the project is still going strong,

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**OpenStreetMap**



From then on, the dialogue between activists clamouring for data and political decision-makers became smoother.

In Europe, the 2003 PSI Directive opened the door to open data's implementation. With the help of Tim Berners-Lee (the creator of the World Wide Web) and under the motto "Unlocking Innovation", the UK Government created its own open data catalogue, which was soon followed by the Open Data Institute and, at European level, the European Commission's European Data Portal, which federates all the open data catalogues of its Member States.

From then on, we saw a boom in data opening initiatives and the creation of portals and dissemination activities. The buzzword was social-economic growth: social, thanks to improved transparency, which enables citizens to understand how decisions are made and based on what data; and economic, equating data with raw material ("data is the new oil") through which old and new companies can generate services.

Civic activism initiatives led by civic hackers ("[...] programmers, designers, data scientists, good communicators, civic organizers, entrepreneurs, government employees and anyone willing to get his or her hands dirty solving problems [...]") (Tauberer, 2014) came onto the scene to promote these initiatives. These consisted of simple and effective projects that were able to explain the government budget, metrics on MPs, report problems in cities... These initiatives sparked a great deal of enthusiasm, although they were always geared to a limited number of citizens.

**US president Barack Obama significantly helped to draw attention to the importance of open data with the 2009 "Transparency and Open Government" memorandum**



## Open data and economic impact: what is necessary?

Any process to open up data requires a number of actions to be carried out, starting from the production of data on the basis of reuse principles and dissemination activities

A McKinsey **report** of 2013 estimated that open data could contribute \$3 trillion a year to the global economy. However, when we look at each initiative in detail, one discovers various deficiencies that quickly discourage the hopes of growth on that scale.

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The dissemination activities help create engagement and obtain quick responses from the civic hacker community. Unfortunately, we often find that as soon as those at the helm of the open data process leave the project, the process' sustainability tends to suffer.



As such, the desired economic advantages fail to materialise.

The *Open Data Barometer - Leaders Edition* report of 2018 points out how “governments are still treating open data as isolated initiatives” and emphasises the need to “prioritise and invest in open data governance to support the substantial changes needed to embed an open approach across agencies and departments”.

It is a necessity that can be accomplished only if we “build and consolidate open data infrastructure: improve data quality and interoperability through effective data management practices and data management systems that are built to manage open data”.

The **ten principles for opening up government information** as defined by the Sunlight Foundation in 2010 establish a series of technical characteristics that are fundamental for the distribution of quality data: completeness, primary source indication, timely updating, ease of telematic access, distribution in readable machine format, use of open standards... and the presence of licences which state that they may be reused.

However, open data initiatives do not always meet these criteria and often limit themselves to basic ones such as the use of licences, open formats and being machine-readable.

These criteria are undoubtedly important, but they are also superficial, especially in terms of providing data that promotes

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**Many open data initiatives prove ineffective in the end**

**To obtain effective results, cost-benefit analyses should be taken into consideration to examine various problems such as sustainability, specification and coverage, adoption of standards or legal constraints**

economic growth. Between 2014 and 2016, the European Community, through its 7th Framework Programme (FP7) to fund research and innovation, commissioned the FINODEX (Future Internet Open Data Expansion) project, the aim of which was the creation of start-ups based on the provision of open data and the firmware platform. Through FINODEX, 4.64 million euros were distributed in order to finance 101 projects chosen from among the over 500 proposals received from 25 countries of the European Union. The project also entailed a series of meetings of “open data coaching” to give help and guidance to the companies involved. However, discussions with these businesses have shown that a large part of the data produced was “junk data”, i.e. data that had not been updated or that was incomplete, with scarce (or non-existent) documentation, that had been distributed in a way that was excessively aggregated and too anonymous, all of which limited the reuse of this data and demonstrated how many open data initiatives prove ineffective in the end. Distribution in aggregated or anonymous form is, unfortunately, an encumbrance that simply comes with the territory, given that this is often the result of legal constraints (e.g. privacy laws).

When promoting an open data policy, it is a good idea to think about what we expect to gain through the techniques we apply to overcome such obstacles.

One solution can be found in the article **“A ‘calculus’ for open data”** by Arnaud Sahuguet and David Sangokoya, which proposes taking cost-benefit analyses into



consideration. Such an analysis examines and considers various problems such as sustainability, specification and coverage, adoption of standards, legal constraints and many other matters, and sets out, in a very critical way, the correct evaluations needed to obtain effective results.

## Open data is a commons

To ensure the sustainability of an open data process, we must turn our gaze to the advantages for the data provider.

Simply examining one's own data to detect any inefficiency gives one a notable advantage.

David Eaves, in an [article](#) where he reviews the first ten years of open data's history and what has been achieved, states that,



**Public administration data must be considered as a public asset, a resource that should be shared by all those who could benefit from it and that nobody wants to keep private**

**A data provider should concentrate on the quality of their data and should perceive the term “open” as synonymous with reuse. The production of junk data must be halted**

“Open data convinced governments that the data they collect was a public asset with critical value, that that value should be shared openly. And that said value needed to be captured by public servants with the capacity to manage, analyse and deploy data in policy more frequently” .

This is indeed an important assessment and one that should not be underestimated. Nevertheless, if we want to truly make headway, we must address one further matter: public administration data’s consideration as a public asset, a resource that should be shared by all those who could benefit from it and that nobody wants to keep private.

A good place to start would be with data that can be viewed as infrastructure, such as data on the environment, the territory, population and transport, etc.

When a whole community recognises something as a public asset, this community will act to safeguard its existence. A data provider should concentrate on the quality of their data and should perceive the term “open” as synonymous with reuse. The production of junk data must be halted; we must promote the culture of good data and readiness to listen.

The quality of open data can indeed be improved if it is managed as a commons. ■

## References

Davies, Tim (2012). *Supporting open data use through active engagement*. Brussels: W3C Using Open Data Workshop.

Eaves, David (2019). *The first decade of open data has been a win – but not for the reasons you think*. London: Apolitical.

Manyika, James; Chui, Michael; Farrell, Diana; Van Kuiken, Steve; Groves, Peter and Almasi Doshi, Elisabeth (2013). *Open data: Unlocking innovation and performance with liquid information*. New York: McKinsey Global Institute.

Obama, Barack (2009). *Transparency and Open Government – Memorandum for the heads of executive departments and agencies*. Washington: The White House.

Sahuguet, Sangokoya and Sangokoya, David (2015). *A “calculus” for open data*. New York: The GovLab.

Schrock, Andrew R. (2016). Civic hacking as data activism and advocacy: A history from publicity to open government data. *New Media & Society*, 18 (4), 581–599.

Sunlight Foundation (2010). *Ten Principles for Opening Up Government Information*. Washington DC: Sunlight Foundation.

Tauberer, Joshua (2014). **Civic Hacking**. In: *Open Government Data* (The Book).

World Wide Web Foundation (2018). *Open Data Barometer – Leaders Edition*. Washington DC: World Wide Web Foundation.

