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Big data and public service delivery ...

## Big data and public service delivery – big hype?

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The following commentary, written by Acting Vice-Provost (Teaching and Equity) and Reader in Government, [Dr Chris Eichbaum](#) and [Associate Professor Karl Lofgren](#), first appeared in Public Sector Journal, September 2016.

Notwithstanding the hyperbole of modern data analytics, or 'big data', the future of public service delivery will not go unchanged by the prospect of using large data sets for better monitoring of supply and demand, and new insights in citizens behaviour.

In contrast to existing forms of sources, such as user surveys, regarding citizens' needs, views, attitudes and behaviour, modern information technologies provide us with far better possibilities to collect, store, process and combine large data sets based on actual behaviour, exact localities, and often based on modern sensor devices monitoring daily activities.

As an example, the Dutch tax authorities discovered when cross-matching their data sets that individuals who were in the process of getting divorced were much more likely to make mistakes in their tax self-assessments. Likewise, there is the classic example of how the search engine Google a few years ago was able to predict both outbreaks and movements of 'flu based on what search terms citizens entered (the precision of Google was, however, questioned afterwards).

For some, this trajectory is not only a revolution for delivering services to the public, but also entails a real asset for the public sector which can be shared, or even sold to commercial interests, contributing to innovation and economic growth in the country.

However, as many commentators have pointed out, reaching these aspirations is not without constraints.

First, 'data' is not a uniform concept. There are vast differences in quality, forms and sources when we deal with data analytics. Among the questions public sector organisations need to ask themselves, is whether to trust data sets that have been collected by non-state actors, and where it may be difficult to assess the quality.

Second, data is collected for certain purposes. This means that it is not a straightforward process to use the data sets for other purposes, and that data does not speak for itself. Someone needs to analyse the data (and transform the data into information and knowledge).

Third, although we are talking about 'big' data sets, it is not too difficult to identify individuals by isolating a few factors such as age, location and gender, thereby making personal data more vulnerable. This is particularly relevant if we are considering making big data open data.

Listening to some of the voices in the debate, one gets the impression that it is all about changing the roles of policy advisers and analysts in government.

## No more policy analysis?

Some claim that the role of the policy adviser will become simply that of a harvester of known or accessible facts, that some kind of algorithm will then be applied and that the policy answer—and there can only be the one policy answer—will emerge.

In this scenario, judgement is not a required element, the process of policymaking is value-free and technocratic, and deliberation becomes unnecessary. The 'free, frank and fearless' test will no longer be a material consideration because the advice will be the product of a technocratic process.

Indeed, taken to its extreme, policy analysis will be replaced with information systems management. The administrative vocation as such will become an historical relic. Sage advice drawing on institutional knowledge and with an eye for implementation risks will become a thing of the past.

But we argue the future holds out real possibilities in terms of bringing the traditional 'craft' of public administration and public service to new digital realities and new possibilities for governance.

Data analytics, in this alternative view, becomes part of the toolkit that the public service adviser can draw on. The challenge is to get public sector leaders to understand not only the possibilities, but also the limitations of data analytics.

In so doing governance may become all the richer, the role of public servants all the more important in a range of authorising environments, and citizens made active participants in co-production, not the passive recipients of policymaking by some kind of enhanced Wikipedia.

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