

The brave new world of big data retention

April 1 2015, by Ashlin Lee



Mountains of data are being collected on you, and much of it is beyond your grasp. Credit: kris krüg/Flickr, CC BY-NC-ND

With the [Senate passing](#) the Federal Government's data retention bill last week, there has been a great deal of discussion of "metadata", what it is and whether the government ought to have access to it.

However, [metadata](#) is just the tip of the data iceberg. The debate about [data retention](#) is only just beginning, and the outcome could touch on many aspects of our behaviour and society at large.

Data, data, everywhere

Metadata is one example of the emerging ecosystem of digital traces, fragments and identifiers that are created as a part of digitally-mediated

social interactions.

This is often talked about in terms of "[Big Data](#)". This represents the creation and collection of massive data sets, and the potential for new social and economic insights to emerge from this mountain of data.

Sociologists [Mike Savage and Roger Burrows](#) describe this growing array of digital traces as forms of "transactional data", as they are born from the routine transactions and interactions of a modern society.

Metadata is just one example of transactional data. It [carries](#) information about other kinds of data. The metadata on a mobile phone call [for example](#) provides information such as the time of the call and the location, but does not tell us about the quality of the call, what is said, the tone, language used, etc. But that does not mean that there is no record of these aspects of a call elsewhere.

While metadata is capturing the headlines, and is enormously powerful in its own right, Savage and Burrows alert us to the fact that there are many other kinds of transactional data that are created and stored.

As we use our digital devices to shop, go to the bank or chat to friends, information on these actions is recorded. Each has different qualities, and provides different insights into our lives.

There are data from games and creative activities, such as your iTunes playlists or home movies, profile data from instances of social engagement like Facebook accounts, and linkage data that records how we interact between services, such as when the ATO auto-fills information on your tax return collected from other sources.

To get some sense of this in relation to everyday life, consider this [satirical but pertinent](#) example from the American Civil Liberties Union,

where the social action of ordering a pizza is linked to a mountain of transactional data.

With no shortage of data available, our lives and actions are illuminated in a way never possible before.

Our brave new world of big data

Thus we need to question the role of data in society. While asking such questions may seem a little premature right now, there are already many issues on the table. For example, what responsibilities and obligations do the social entities that use data have to the general public and us as individuals?

Big data and related data science groups have promised to do great things with our data. In particular, they seek to use data analysis and algorithms to [predict future actions](#).

Google CEO Larry Page [once argued](#) that 100,000 lives could be saved if more health care data was available for analysis. That is, if users were willing to give up their health care records to a privately held, for-profit corporation, who routinely data mines and analyses the [private conversations](#) of all its users.

The amalgamation of data in databases (often privately owned ones) therefore raises enormous issues of power, and also of inequality. [Mark Andrejevic](#) and [Stephen Graham](#) both suggest the possible emergence of a new form of digital inequality between those who have the access and capacity to use data sets – and therefore the ability to make decisions and predictions on individual lives – and those who do not (i.e. the rest of us).

In a related vein, how comfortable are we for data driven systems (i.e.

algorithms) to make decisions? US lawyer Frank Pasquale raises this issue in some detail in [his recent book](#), which describes how data-driven algorithms can autonomously shape society, from [financial transactions](#) to [military actions](#).

Our data out of our hands

Our transactional data can judge us in ways we might not even be aware of, shaping our life options and possibly excluding us from broader social change that Mark Burdon and Paul Harper call info-structural discrimination.

In the case of military and police actions, algorithms can also make us a target of the [security services](#), or even determine if we are the target of [violence](#).

This can occur without human oversight or recourse if algorithms and machines are given more leeway to act with the belief they can [better handle this data](#). Is it acceptable for algorithms and machines to make these kinds of decisions?

We might also want to consider rights and expectations of individuals in this context. Australian sociologist [Deborah Lupton](#) has noted the growing prominence of personal information cultures with the rise of self tracking devices, such as FitBit and [Jawbone](#).

It is now more popular than ever to collect data on yourself. But the use of these devices has already proved critical in [recent legal cases](#), and the [health insurance industry](#) is keen to leverage the potential of such devices.

How should we as citizens response to these and other sensor devices in relation to our conduct? How can we use these devices for our benefit,

without them being used against us?

There is a temptation to focus only on immediate issues with data, such as the metadata retention issue. But to do so ignores the deluge of data being collected and used in society today, and also the social questions that such [data](#) raises.

If we do not engage with these questions as a society soon, we may find ourselves swept in a direction we do not like.

This story is published courtesy of [The Conversation](#) (under Creative Commons-Attribution/No derivatives).

Source: The Conversation

Citation: The brave new world of big data retention (2015, April 1) retrieved 12 May 2024 from <https://phys.org/news/2015-04-brave-world-big-retention.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--