

How can the better use of data benefit public services?

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3rd November 2022

(THANKS AND INTRODUCTIONS)

As individuals, in our daily digital lives, the quantity of information to which we are exposed – and which we are generating, is incredible. In this age of information, data is available everywhere and grows at an exponential rate.

In this presentation, I am going to explore how we, as public servants, can make sense of all this data? By considering some examples, I will explore how we can take advantage of data when making decisions, and how we can use data to help us guide the management and planning of our policies.

Introduction

Data is becoming one of the most valuable commodities in the modern world. Almost every interaction we have generates some form of data point; on our laptops and phones, on other devices in our homes, in shops and restaurants, when we use public transport. Add to this the vast amount of information generated by traffic cameras, CCTV, sensors and monitoring equipment for temperature, footfall, pollution and dozens of other reasons.

Private companies have recognised this value – and much of the value of some of the largest companies in the world is generated by the data they hold and to which they have access and can monetise for their consumers and advertisers.

National and local governments – and many individual branches of public services also hold vast amounts of data about their citizens and service users. Much of this may be duplicated, and for all sorts of reasons such as different software systems, professional practice and very often

because there has never been a need to share it beyond the service that collected it, this data is often siloed and difficult to share with other parts of the public service information ecosystem.

Of course, we must be aware and sensitive to concerns around privacy and ensure data protection is robust – public services hold extremely sensitive medical, financial and personal information on its citizens.

However, user's expectations of service levels are increasingly being led by their experiences within the private sector – and the public sector should recognise this in planning and policy making planning, provision and delivery.

In the next few minutes, I will consider some ways in which this could be done.

Making sense of data

It is a truism in computing that rubbish in leads to rubbish out – that is, the results of any program or process or algorithm are only useful if the data it uses is accurate and of good quality. Whether we are looking to find specific data for an individual person or business, or using large amounts of data to extrapolate trends for long term planning, we need to be confident on the accuracy of the information that has been collected and how it has been categorised and stored.

While this sounds simple in principle, I am sure we will all have had experience of this not being the case in practice. Whether it is because data has been collected by different organisations or departments for purposes that have changed over time, or has not been updated, or is not compatible or transferable between different systems, or has been duplicated, actually obtaining and maintaining good, clean, accurate data is a challenge in itself.

Huge amounts of time, resources and money is spent collecting data, but recent analysis suggests that 85% of the information is not properly used – which was revised up from earlier pessimistic estimates of 60% when investigated. This demonstrates the scale of the problem we face if we are to take advantage of the vast amount of information which we hold and use it efficiently and effectively.

We must always be aware of concerns around privacy, of course, but this could be improved – and individuals' worries reduced – by a better understanding of the difference between anonymised (not traceable back to an individual) and pseudonymised (back-traceable) data. Information which is client facing will be used specifically to support them, and should be protected. But to deliver public services more efficiently, we need to be able to anonymise this data and make it accessible, useful and available on a timely basis so that we can analyse, assess and improve how we deliver services, and how we adapt and plan for the future.

Use to advantage in decision making

The global experience of dealing with Covid-19 – which was markedly different in different countries – shows the importance of health services needing to be able to collect, share and analyse data in real time for local and national governments to make vitally important decisions to protect public health and all the subsequent economic impacts of lockdowns. From a standing start in some cases, systems were relatively quickly adapted so that daily and weekly data could be collected, analysed and shared in a way that could be easily understood by the public to explain why difficult decisions needed to be taken.

So we know it is possible – but it shouldn't take a global pandemic to enable such should an effective level of data management and reporting! There are examples of good practice out there already – we do not need to reinvent the wheel – but we do perhaps need to remind ourselves from time to time that using transport with wheels can usually get us to our destination a lot more quickly than walking or running.

Police services, necessarily, have some good examples of this but there is a long way to go before governments are really 'making sense of data' that they hold to best serve their citizens.

Private companies are already moving towards integration in households with the 'internet of things' whether that is fridges 'making orders' as their stocks are diminished, remote control of central heating, via mobile phones or the use of alerts through intelligent doorbell technologies or movement sensitive cameras, to detect intruders or facilitate deliveries.

To take just one example, the Greater Manchester council, in the North West of England, has recently experimented with transposing this approach to the local urban landscape through real-time monitoring of traffic flow and air pollution so that it could pass information to pedestrian residents with health and breathing issues so they could plan less polluted routes when they wanted to travel locally.

It is estimated that if Internet of Things pilots such as the ones in Manchester continue to show success – and the IT element of these projects is essential and serves as a model for how data insight can be leveraged – then between 8 and 11 trillion pound a year in economic value could be generated by 2025 in the UK alone.

We have barely begun to explore the potential for improving services and quality of life for our citizens. But, of course, we can only begin to make progress if we address the issue of quality of data, held in forms that can be easily shared and transferred across different systems and departments.

Guide to planning our policies

So how can we start to unlock and activate the power of the data that we already hold?

Self-evidently, we need to consider what data our organisations and departments *already have*, in what form it is held and how it could be shared – anonymised or pseudonymised – with other branches of government, with research and development organisations and with private deliver partners.

We also need to think about why and how we collect data in the future – what is really important to us? As I have already discussed, the issue is more about selecting what is useful to us from the vast amounts of information available; of sifting for the nuggets of gold in the endless river of data in which we are standing.

It is a truism that the plural of anecdote is not data. Once we are confident that the data informing our decisions is accurate, we can then trust the information coming of these systems. This should empower us when we are developing policy proposals which are going to work in the real world; when they are based on accurate, reliable and well organised data that can be easily understood we can communicate them to politicians and the public more effectively.

Guide us in management of our policies

Once we have implemented policies, we need to continue to collect data which will enable us to accurately monitor their delivery and impact on an ongoing and timely basis.

I have written elsewhere about the need for good governance and accountability especially on large-scale policies which cost hundreds of millions of taxpayers' money to deliver. Far too often, when these projects are seen to fail, or costs have spiralled way beyond original estimates, those responsible for making the decisions have moved on (whether civil servants, private contractors, or politicians). With the technology and capacity to collect and process data that we have available to us now, we should be seeking to close this accountability gap.

What this means will vary in different sectors – real-time updates for police or security services, hourly for transport, daily or weekly for health and social services, not everything needs to be available immediately.

However, we should be looking to meet the experience and expectations of our citizens when they shop, bank, make bookings or use social media online to connect, find information or seek advice.

Creating an appropriately time-responsive feedback loop should lead to an improved experience for service users, as well as enabling data aware public servants and services to make better decisions and change course dynamically, rather than reviewing retrospectively.

Conclusion

I hope that I have made the point that the issue often isn't the absence of data, it is the abundance of it. As you consider the needs of, and demands upon, the services that you deliver, I would encourage you to look for clarity around why you are collecting data, what is most important when you collect it, and how you collate it in a way in which it can be efficiently shared. What are the important nuggets?

We should look to how the private sector uses data – both the consumer/client experience and organisationally – to recognise just how effectively targeted use of data can be, and then consider and plan how we could apply such practice to our own organisations.

We should aim to collect, present and interpret data to inform planning and assessment of policy decisions in a timely and effective way that can be understood by the public and by policy makers.

And, while taking care of privacy concerns, we should recognise that the enormous amounts of information which governments hold is an incredibly valuable and powerful resource. If anonymised on a national scale, this data can be used to inform long term strategic plans to address the enormous demographic, environmental and economic challenges of the coming decades that we all will face.

Thank you.