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Big Data, Big Savings…But Also Big Gamble?
By Andy Richardson, CEO of Influential Software

As if in recognition that 'Big Data' is the next big technology trend about to cross over, the think-tank Policy Exchange has just waded into the debate with a headline grabbing report "The Big Data Opportunity" which claims that the UK government could save £33 billion, just by making greater use of Big Data analytics.

The report was launched at the Big Data Summit in London and makes the valid point that while the public sector devotes considerable time and resource to amassing data as part of running the public services, it's much less effective at connecting them.

If it were able to find ways of sharing or linking these data sets, Policy Exchange suggests that government could fundamentally transform the way that it engages with its citizens and could save money on the way.

One suggestion made by the report's author, Chris Yui, was that it could save £500 million by scrapping the ten yearly census and instead gathering data on the UK's changing population demographics by 'mashing up' information from the electoral role and council tax registers. Similarly the report also claimed the traffic bottlenecks that periodically paralyse airports or the road network could be anticipated and averted by monitoring activity on Twitter.

While it's great news that an influential policy body has bought into the idea that stores of unconnected data represent significant unlocked value to governments and taxpayers, I worry that this report underestimates the challenges and investment required to make these savings possible. Big data analytics is a powerful tool, but it's not a panacea, especially not when it's expected to interface with the complex computer systems – many of which depend on legacy technologies - that still run big parts of the public services.

The success of big data analytics also stands or falls by the quality of the data fed into these systems, and despite many valiant efforts across multiple agencies, this still cannot be assured across the public sector.

Take Policy Exchange's census-scrapping mash-up as an example. It assumes that council tax data from all 353 local authorities can be amalgamated and cross-referenced against other demographic data which could be structured in fundamentally different ways. It's a wonderful idea, but who's

going to write (and pay for) the APIs that make it possible, especially if the single objective of the programme is to save money?

Remember NPfIT?

Another spectre hanging over any proposals to unify the way that the public sector uses technology is that of the NHS's ill-fated National Programme for IT. This too was launched in a great spirit of optimism amid predictions of how much money it would save, but came rapidly unstuck when it emerged that government computer systems cannot talk to one another, let alone work together, and ended up being a vastly more expensive and time-consuming business than the technology evangelists promised.

Ten years on it is reasonable to expect that better standards of project management in the public sector would smooth the implementation of Big Data analytics somewhat, but it won't make the process painless.

Given that government agencies would be coming to big data analytics from a standing start, it's also a little misleading to suggest that these projects are a route to short-term cost savings. With so much work to be done in standardising government data sets, cleaning data feeds and ensuring legacy systems can work with analytics solutions.

It's also a little misleading to suggest that a government in search of short-term savings could secure them through Big Data analytics alone when most government agencies would be coming to such projects from a standing start and would need to think of it as a medium to long-term investment.

The bottom line

Big Data, like all other hot technologies, has enormous latent power to transform the way organisations operate. If it is to fulfill on its early promise, however, it's crucial that we don't over-promise on what it can do on its own. Yes, it could help the world's governments govern in a much more efficient and joined-up way.

But there's a lot of groundwork to be done before that's possible.