



Data Centre and Virtualization

What Data Scandals mean for the Industry

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Biography

Darren began his career as a graduate Military Officer in the RAF before moving into the commercial sector. He brings over 20 years experience in telecommunications and managed services gained at BT, MFS Worldcom, Level3 Communications, Attenda and COLT. He joined the VIRTUS (<https://virtusdatacentres.com>) team from euNetworks where he was Head of Sales for the UK, leading market changing deals with a number of large financial institutions and media agencies, and growing the company's expertise in low latency trading.

Additionally, he sits on the board of one of the industry's most innovative Mobile Media Advertising companies, Odyssey Mobile Interaction, and is interested in all new developments in this sector. Darren has an honours degree in Electronic and Electrical Engineering from University of Wales, College Swansea.

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Abstract

We all remember Facebook's public relations nightmare last year – the fallout from news that a political consulting firm violated its rules for third party apps – but, despite the damning headlines, says the author of this article, big data is a long way from being all bad.

Introduction

On the flipside of the Cambridge Analytica scandal, Facebook has recognized the positive impact of the data it collects. Its Data for Good program is focused on getting information in the hands of academics, non-governmental organizations (NGOs), and the broader development community so they can make a positive impact on world issues. A great example of this is its disaster maps initiative, launched in 2018 with UNICEF, where aggregated and anonymized location data has been able to significantly improve situational awareness when responding to natural disasters.

Closer to home, data has become an intrinsic part of all of our lives. From shopping, to dating, to the connected devices in our pockets, data is fuelling nearly every aspect of our lives. It even helps us get to work on time. Numerous real-time



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data metrics go into ensuring traffic runs smoothly, including GPS systems, social media use and magnetic sensors – all of which help traffic agencies manage the roads.

So, whilst the highly publicized scandals understandably caused concern, it's vital that we don't throw the baby out with the bathwater. Big data makes consumers' lives easier and helps businesses function better: the ability to access and interpret it as meaningful actionable information, very quickly, will give a huge competitive advantage to those organizations that do it well. Whilst innovation must be encouraged, it should not come at the cost of privacy and security. If we don't get the balance right between data protection and data driven innovation, the UK economy will suffer and personal data may be misused.

A balancing act

To be successful, firms need to strike a precarious balance between innovation and data protection. At one end of the spectrum, there is distrust of the use of data beyond limited, specifically identified purposes. At the other end, the recognition that data is a valuable asset suggests that its more widespread use could empower innovation and economic opportunity. This is a complex argument, which isn't likely to be categorically solved anytime soon. but whichever side of the fence you fall on, there is a duty for companies who work with data to manage it appropriately. It is imperative that companies have an infrastructure that anticipates growth in data volumes and expansion of data types as well as developing an institutional culture that fundamentally understands the importance of big data. Personnel at every level must work with a mindset that ensures the entry of complete, accurate and uniform data – essentially good data “hygiene”.

Good data hygiene extends to the organization of data too, encompassing well-defined schemas, an organized data architecture and more. This approach allows companies to perform analytics faster, ensuring the data they're working with is accurate, current and used appropriately. But of course, data storage, processing and maintenance can be expensive.

Prioritizing security

Good data hygiene is a crucial building block in good data use. The most visible thing to get right, in the eyes of the consumer at least, is security.

Simple hacking is where big data shows weakness, thanks to the millions of people whose personal details can be put at risk with any single security breach, and the scope of the problem has grown considerably in a short time. For instance, it wasn't too long ago that a few thousand data sets being put at risk by a hack was a major problem and made major headlines such as when Yahoo announced that it had not secured the real names, date of birth, and telephone numbers of 500 million people. It's data loss on an unimaginable scale, and of course, for the public, that's scary stuff.

This, together with the computing power needed for big data applications, puts increasing pressure on organizations' IT and data centre strategies. These challenges need to be overcome if big data isn't to always spell danger. Indeed, it's



no exaggeration to say that data centre strategy could be crucial to big data's ultimate success or failure.

For even the biggest organizations, the cost of having (and maintaining) a wholly owned data centre can be prohibitively high. But, for many, security concerns mean that a wholesale move to standard, cloud platforms in a hybrid model isn't an option. The savviest firms are turning to colocation for their data storage needs, recognizing that moving into a shared environment means that IT can more easily expand and grow, without compromising security or performance.

By choosing colocation, companies are effectively achieving the best of both worlds; renting a small slice of the best uninterruptible power and grid supply, with backup generators, super-efficient cooling, 24/7 security and resilient path multi-fibre connectivity that money can buy that has direct access to public cloud platforms to provide the full array of IT infrastructure – all for a fraction of the cost of building and buying them themselves.

A tipping point

Now is a crucial point in the history of big data and there's scope to get it very right, or very wrong.

We are only just at the very beginning of this data revolution, and the cat is firmly out of the bag – we need data in our business and personal lives. But consumer demand drives everything and big data is no different. As the public grows more wary of data breaches, the pressure will (and already has) come to bear on the business community to pay more attention to securing, storing and using data in the right way. Counter-measures that used to be optional are now becoming standard and are putting increased pressure is being put on company's IT systems and processes. Proper infrastructure and good data management can only help to control the bad and make the good better.