Future Foundation conference — Big data and the future of insight

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Why is data the new oil?

It was back in November 2011 when Andreas Weigend, former chief scientist for Amazon, and Peter Hirshberg, former head of enterprise marketing for Apple, introduced big data to the United Nations in a presentation that identified how social media posts throw off the sort of clues about consumers about which social scientists only used to dream. From credit card transactions to mobile apps, the signals from this unprecedented explosion in data were hailed as having the potential to transform society and business. Hirshberg used the now much-feted expression ‘data is the new oil’ to explain the potential value of this phenomenon.

Finding the signal in the noise

Realizing that value is more complex and was the focus of the Future Foundation event held on 12 March 2014, ‘Big Data and the Future of Insight’, which took a look at how new data streams might be combined with classic research techniques and methodologies to extract at least some of that potential. By using machine-learning to tackle the volume of data now being generated, it starts to be possible to find the signal among the noise. (Figures on the scale of data generated on a daily basis have become an unfortunate cliché of big data events — this one used the analogy of writing data onto CDs and then stacking them so they reach the Moon and back, five times over.)

‘The really interesting thing is when you combine volume, variety and velocity to identify “unknown unknowns”, such as that panic buying in the United States during hurricanes sees a 700 per cent increase in purchase of Pop Tarts’, said Georgina Sapsted, leader of quantitative analysis at Future Foundation. In the fashion sector, newness has emerged as a driver of sales that outweighs cutting prices, she noted.

Causality is not dead

However, Sapsted warned about the risk of false correlations and believing that ‘causality is dead’. Only by careful questioning of models and researching deeper into the patterns that emerge from data can explanations be found, such as that Pop Tarts are likely to endure severe weather as a food stuff and still offer some nutrition.

Four key features of the big data revolution

James Murphy, editorial director of Future Foundation, then examined what big data promises for the business world. He identified four key features: a compression of risk, the maximization of the value of innovation, winnowing out of costs and opportunistic marketing. Hailing big data as a revolution in our lives as consumers, before it revolutionizes the economy, Murphy argued that new behaviours are emerging, such as finding your perfect life partner via an algorithm on a dating site.

Murphy summarized current thinking about big data into four key claims. The first of these is that ‘it doesn’t matter what the consumer

thinks, only that they act in a way you can trace', he said. The second is the possibility of ultra-personalized communications. Legal restraints on the use of data are emerging as the third strand, while effective predictions for new products will minimize research and development losses in the fourth claim.

Not replacing the creative soul

Critically, Murphy said that 'big data cannot replace the creative soul. It is the job of insight to look at why we like certain things and move on to others'. The risk is of big data leading to 'driverless brands' where data and machine-learning are leading innovation. His own view is that 'somebody somewhere has to keep probing into the emotions that drive change'.

In many respects, markets are likely to become more conservative as they use big data to lock out competitors through a narrow focus on existing behaviours. In the same way, ultra-personalization may not happen because consumers will not welcome it in many situations and brand relationships. There is a border where big data ceases to be the 'silver bullet' being claimed.

Weak uptake of big data services

Through its nVision research, Future Foundation has flushed out some consumer attitudes that suggest big data currently has an easy time of it. Asked whether they are concerned about where data is stored when they use a mobile app, only 14 per cent of UK consumers stated that they were strongly concerned, while 19 per cent said it should be possible to be anonymous on the internet. More of a barrier is the weak level of interest in services that are based around big data and automating many personal services for the customer. 'Until the benefits of big data are made real, consumers will not want them — they require a leap of the imagination which many are not able to make', said Murphy.

Murphy also doubted that regulation will do anything to slow the uptake of big data — 'it is like trying to stop a typhoon with the palm of your hand', he said. But real commercial opportunities will arise when 'insight sits on the shoulders of big data. At the moment, it is like a nuclear deterrent. Once everybody has it, by what means will a company achieve competitive advantage? The role of insight is re-energised by the very success of big data'. As Murphy noted, 'all the big data in the world cannot increase consumer spend on any given day'.

Threats to market research

The backdrop to the event is a serious concern in the market research world about the impact big data will have, not least through data scientists claiming that their behavioural insights trump what researchers can offer. The Market Research Society has even run an event discussing whether its industry could be killed off by the newcomer.

Four big data trends

To prove how much value there is in the combination of both, Dominic Harrison, director, global trends at Future Foundation, presented four key trends that the company has identified resulting directly from big data-driven consumer behaviours. He argued that there will be a 'background hum' in the life of every individual from the new data-rich environment.

Retail Reloaded

The first of these trends was 'Retail Reloaded', in which stores become 'datafied' and track everything from the pathway of shoppers through a store to immersive in-store experiences and the way consumers now 'click and collect' across channels. 'All of these are attempts to maintain

the relevance of bricks and mortar in our everyday lives', said Harrison. Shopper Track is using monitors to identify hotspots in shops, queuing times, levels of engagement and other variables to inform tactical shopper marketing decisions. 'Visiting a store could soon become similar to visiting a casino, where every movement is tracked in real-time and conveyed to a central analytical function, ensuring real-time decisions and delivery of experiences', he said. Kohl's in the United States is running a test in five shops offering personalized offers to opted-in consumers and expects a higher response rate to these propositions made at point of sale.

Society of Sobriety

'A Society of Sobriety' is the second trend spotted by Future Foundation emerging among young adults, and celebrates healthy moderation and responsibility for personal health and well-being. Among those born after 1981 in the United Kingdom, one in six are using self-tracking health technology, the type of big data-driven products and services that are driving the 'quantified self'. Among those aged 16 to 24 years, 56 per cent have expressed an interest in wearable connected technology, Harrison pointed out. 'This behaviour can only be boosted under big data conditions, driven forward by the gradual "datafication" of the human experience', he said. As a corollary, he noted, 'we potentially face the end of personal discretion on health matters'.

Murdered by Modernity

A third trend rejoices in the title 'Murdered by Modernity'. This world of accurate predictions of our behaviour and constant measurement of our digital footprint sounds terrifying, Harrison acknowledged. 'Digital progress in lots of ways is having a detrimental impact on our lives', he said. Memory and language are both under pressure from technology and solutions on offer from big data. But Harrison doubted whether consumers will opt out of this world and take steps to protect their privacy and go 'off grid', for example by using anonymizing services like Tor. Actual usage rates are barely 10 per cent and remain a niche proposition, however. Instead, users are adopting 'private browsing' options on mainstream browsers, as seen among 39 per cent of women aged 16 to 29 years and 50 per cent of men in the same age group. 'It must be because they are all buying secret gifts', he suggested.

Globalization

The fourth trend discussed was Globalization, as shown in the way that music artists can now rapidly appeal to fans around the world (think Gangnam Style) or the distribution of products via global platforms like Amazon and eBay.

A panel discussion involving representatives from British Airways, IBM and Zurich Insurance then considered what these trends might mean for brands trying to make sense of these shifts and hoping to gain competitive advantage. A common theme was that finding the skills to leverage big data will be difficult, while brands also need to be conscious of maintaining customer trust and not going too far in their overuse of data. As an example of the point made by Murphy around the need to blend big data with conventional insight, one panel member gave the example of the music streaming service Deezer. With the largest online inventory of 30 million pieces of music, it has to apply algorithms in order to suggest playlists to its customers. Yet at the same time, it also employs 50 music editors in local markets to curate playlists and identify emerging acts and

Where is the value?

trends. This blend of human and machine understanding seems likely to be the way forward.

Among the exciting insights into human behaviour that big data allows, such as tracking spikes in texts in Rome during Italy's extra-time loss of Zinedine Zidane during a World Cup match, there is a lot of arguably less valuable insight being thrown out, such as who might pick up an Oscar based on social buzz. The true value and accuracy of big data is still in play (unlike Zidane during that match) — even tracking the spread of flu, which Google has famously done based solely on search terms, has recently been challenged for its accuracy. Future Foundation's forecasting offered a valuable way to understand the real nature of the big data revolution in the consumer's life, even if it couldn't provide the answer as to what business should be doing about this.

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IDM data council discussion — Organizing for data and analytics

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Where should data sit?

The emergence of the new role of chief data officer (CDO) has given rise to much discussion about the nature of both the task involved and the type of person required to perform it. Less often considered is where the CDO should sit in the organization.

This is a question that has remained unanswered for the last 5 years of interest in data and analytics. While some organizations maintain their data asset and insight teams within whichever function first develops them, others work to create a standalone centre of excellence that serves the whole enterprise.

At the IDM Data Council meeting on 19 February, hosted by Microsoft, the issue was considered by members. James Morgan, Head of Management Information at British Gas, Former Head of Data Management at Telefónica UK and Council Chair, noted, 'At O2, it was centred in marketing. That is a very marketing-led organisation, so that was a good place for it. At British Gas, data has historically been spread across a number of different functions, but we now understand the importance of great information and are going on the journey to identify how best to realise its potential'.

Executive buy-in v sponsor support

All organizations can be positioned on an information maturity curve depending on their usage of data and analytics, moving from *ad-hoc* to optimized (although few ever reach the highest state of practice). Their rate of progress up that curve will depend on the industry sector, company culture and existing infrastructure when they start the journey.