Harnessing the Power of Data

How the data revolution will change every element of business as we know it
Are you excited, confused or overwhelmed by the potential of data to transform your business?

If the answer is “all of the above”, rest assured – countless executives who are racing to keep pace with the technological revolution taking hold across the business world are feeling exactly the same.

Data is the next great dividing line between success and failure in business. With the incredible insights offered by data increasing on an exponential scale, there’s no doubt that the businesses that harness data effectively will not just survive, but thrive in the future. By the same measure, those that fail to will simply not survive.

The 2017 Total Retail Survey by PwC shows the extent to which digital technology has reshaped the business landscape for consumer brands. It finds that ecommerce is now reaching parity with physical forms of retail, as 73% of retailers say they use a website to generate sales compared to 79% for stores.

No wonder that Steven Dennis, a Forbes contributor and former SVP of strategy & multichannel marketing for the Neiman Marcus Group, has argued that the term ‘ecommerce’ is becoming obsolete. The line between digital transactions and bricks-and-mortar sales has blurred to such an extent that for today’s consumers, “it’s simply ‘commerce’,” he says.

This provides business with enormous opportunities, as every interaction it has with customers – as well as suppliers, distributors and other stakeholders – becomes a data point from which it can derive value.

The challenge is how to go about this in a way that ensures the best possible competitive advantage. This question may demand reorganisation or even transformation of how a company operates.

We at The MBS Group work across the full range of consumer businesses, including bricks-and-mortar operators and pureplay digital organisations. It’s telling that regardless of background, all of these businesses are seeking to adapt and gain an edge in this new age of ‘big data’, from the hires they make to how they structure their teams.

In this report we speak to representatives from a range of businesses to understand how they are reshaping their brands around data – from increased customer personalisation and key efficiency gains, to the new regulatory landscape and the role of AI.

We finish with a write-up from an event held by MBS and venture capital firm LocalGlobe, in which we explored the role of data through various case studies and speakers.

From all of these insights the message is clear: the time to act is now, lest businesses get left behind.

Stephen Rosenthal
Head of Tech & Digital,
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Source: PwC & SAP Retailer Survey
Unleashing the power of ‘Big Data’

In May 2017, The Economist published an article entitled ‘The world’s most valuable resource is no longer oil, but data’. It noted that the internet and smartphones have made data “abundant, ubiquitous and far more valuable”. Every single activity that a person does today – from going for a run to watching TV to driving their car – now creates a “digital trace”.

The sheer volume of data is growing rapidly, as our lives become enmeshed with digital services, and as an ever-growing list of everyday objects such as watches, thermostats and cars become internet-connected.

The EMC & IDC Digital Universe Report calculates that from 2013 to 2020, the digital universe – defined as the data we create and copy annually - will have grown by a factor of 10, from 4.4 trillion gigabytes to 44 trillion. The report also estimates that whereas in 2013, around 5% of data was especially valuable or “target rich”, by 2020 the percentage should more than double as enterprises take advantage of new data and analytics technologies.

The term ‘big data’, which has become something of a buzzword, has several definitions, but essentially it refers to the extremely large volumes of data, both structured and unstructured, available for businesses to mine, analyse and action against.

It is telling that the five most valuable listed firms in the world today are not oil or commodities giants, but rather tech giants.

The success of Alphabet (Google’s parent company), Amazon, Apple, Facebook and Microsoft is firmly based around their superior ability to identify and then serve their ever-growing customer base, at speed and with levels of accuracy never before deemed possible.

Not surprisingly, all of these businesses are now investing heavily in artificial intelligence and machine learning – the next great frontier in data. This technology is driving the automation of every area of our lives, while also increasing the data processing capacity of machines on an exponential scale.
Businesses of all shapes and sizes have access to huge amounts of data with the power to transform their fortunes. Most companies will have been sitting on a goldmine of customer data for years, generating it – often unknowingly – through various portals like websites and apps, till sales and customer service logs. The key is to turn these unstructured statistics into tangible insights that brands can action at speed.

It was no fluke that Amazon accounted for more than 44% of online sales in the US in 2017. The business uses data to track everything about its customers and their behaviour, including demographics, location, purchasing patterns, the online journey and dwell time.

By turning all of these data points into actionable insights, Amazon is able to precisely target its marketing and communications in order to consistently acquire new customers, retarget existing ones and improve the overall customer experience in real time. Amazon’s recent expansions into a huge range of other areas – including fashion, grocery and AI-powered home assistants – will serve to expand the data it holds on customers ever-further, driving cross-sell opportunities and thus revenue growth.

Very few companies are of a comparable scale to Amazon of course, but all businesses can now drill down into very detailed levels of data.

First and foremost, they should discard the old mass segmentation techniques that group customers into manageable categories. In a world where we can instantly segment every single customer by preference, location, age, family situation, income and even habits and hobbies, broad-brush stroke segments like “NEETS”, “Millennials” and “Silver Surfers” increasingly feel like relics of a bygone marketing age, built on instinct and generalisations that create massive cohorts representing millions of – and therefore no – individuals.

Replacements for this tired approach with the highly-targeted, personalised communications today’s rich data provides, enables brands to speak to their customers as individuals. This is the key to building deeper relationships, ultimately leading to more engagement, recommendations and higher sales.

“As companies embrace the power of customer data, the impact can be hugely transformative on the customer”  

— Ian Small, Former Chief Data Officer, Telefónica Group
Driving efficiencies

Ian Small, Telefónica’s former group chief data officer, notes that harnessing customer data to achieve brand goals is nothing new. The step-change, he says, is in the level of detail that businesses can now access in the world of ‘big data’.

“As companies embrace the power of customer data, the impact can be hugely transformative on the customer, on the organisation and on the shareholder,” he says.

“Data-driven improvements to customer engagement, customer satisfaction, organisational efficiency and decision making will ultimately add up to material financial impact and substantive competitive differentiation – benefits that flow all the way through to your shareholders.”

Jonathan Wall, Chief Digital Officer, Missguided

“Harnessing data correctly is the only way to be a truly evidence-led business, removing the ‘I know best’ HiPPO (highest paid person’s opinion) approach that frustrates many businesses and doesn’t put the customer’s needs to the forefront of product development.”

The possibilities for driving efficiencies are endless too. Today, data should guide a business’s decisions on everything from supply chain, stocking and distribution to how it manages its workforce. By using internet-connected sensors on product inventory, for example, large corporates are now saving millions of pounds by precisely monitoring and directing stock levels to the right markets in real time.
Getting data-ready

So how should businesses prepare for this new age of data-centric decision making? As recently as ten years ago, data was generally seen as a rather passive function within businesses. In most cases, if companies did have a CDO, it referred to a chief digital officer, responsible for the relatively minor ecommerce and technological aspects of primarily analogue companies.

The evolution from “Digital” to “Data” in such a short period of time is a powerful metaphor for the now innate core requirement of digital thinking, skills and expertise found in every business. The often quoted “digital transformation” companies require now is, in fact, “total transformation”, with digital thinking at the centre of everything. It’s not enough to have a “techy” on the board any more.

The designation of chief data officer may have existed, but the early iteration of this role was primarily focused on the very practical aspects of data, such as managing data architecture and warehousing across the business.

Usually the data function would sit within the IT department and report to the CIO. Its primary role was to process and create relevant data sets that could then be passed over to analysts within specific functions (in particular marketing) to action. In other words, the data function was a servant to the rest of the business, siloed away from core commercial decision-making. As a result, the CDO tended to be a data scientist or systems architect – not necessarily a commercially-minded ‘business person’.

The elevation of the role to board-level in recent years has coincided with an exponential rise in the quantity and quality of data available to businesses. Sainsbury’s decision to hire Andrew Day to the C-suite position of chief data officer in 2016, for example, is a clear sign of the importance the business now attaches to data.

Announcing the appointment, Sainsbury’s said the role “reflects the value we place on our insights in an increasingly fast-paced and digital world”.

Andrew joined from News UK, where he was chief data officer, with a direct reporting line into the CEO. Prior to that he held a number of roles at Telefónica O2, including general manager of business intelligence and head of CRM. With this background, Andrew brings together the relevant tech expertise with the high-level strategic thinking and leadership skills demanded from today’s chief data officers.
Rise of the CDO

According to market forecaster Gartner, 90% of large organisations will have hired a CDO in some capacity by 2019. It adds that by 2020, 50% of leading organisations will have a CDO with similar levels of strategy influence and authority as their CIO.

The role involves bringing together the many disparate functions within a company that collect and apply data on a day-to-day basis. CDOs must navigate this complex matrix structure in order to oversee group-wide compliance with governance standards, and to ensure that data is shared and applied in a way that maximises performance across the business.

It’s no longer just enough to be a data scientist – CDOs must know how to lead and work with all stakeholders.

Mario Faria, research vice president at Gartner, said: “With the explosion of datasets everywhere, an important task is determining which information can add business value, drive efficiency or improve risk management.

“The CDO’s role will raise expectations of better results from an enterprise information management strategy, with stakeholders wanting a clear idea of the exact mechanics of making success a reality.”

Several other large companies have appointed C-suite level chief data officers in recent years. This includes American car giant General Motors, which hired its first chief data officer A. Charles Thomas, formerly CDO of Wells Fargo, in July 2017.

Meanwhile, Indian conglomerate Aditya Birla Group hired former Tata executive Deep Thomas as its chief data and analytics officer. The company, which has business lines across a hugely diverse range of areas, explained that it wanted to put in place a group-wide strategy for all of its data.

“There is a huge amount of data we are sitting on in telecom, garments, retail and financial services businesses,” said Group HR Director Santrupt Misra. “Given that kind of data on consumers, it is important that we garner insights on that data to prepare solutions and offerings to cross-sell and up-sell. There are tremendous opportunities.”

“CHIEF DATA OFFICER IS A GREAT JOB BUT IT’S ACTUALLY SOMETHING THAT A CHIEF CUSTOMER OFFICER COULD ALSO DO”

Andrew Mann, Vice-President of Insight, Pricing and Digital CRM, Asda
Working business-wide – finding the gold dust

Andrew Mann, vice-president of insight, pricing and digital CRM at Asda, argues that while chief data officer is an important role, the appointment need not be compulsory for all businesses. Rather than become preoccupied with specific job titles, he believes that all senior members of an organisation should understand how to use data, and that the CDO’s responsibilities could potentially sit with another board-level function.

“Chief data officer is a great job but it’s actually something that a chief customer officer could also do,” he says. “The slight difference is that a chief data officer doesn’t just look at customer data – it looks at all of a data that an organisation has.”

There are pitfalls along the way. The study by Gartner forecasts that only 50% of CDOs will be hailed as a success by 2020, due to a number of factors, including roadblocks such as “people, culture and internal resistance”.

A senior marketing executive with retail experience says “there is never one answer” when it comes to restructuring an organisation around data. She adds that iterative change – rather than “big centralised transformation programmes” – is, in her view, the better way forward.

“As a CDO I think the first part of that job is to almost diagnose what you think your job is,” she says. “There are so many people who think they own, and probably do own, responsibility for bits of the data picture in a business.”

“People can be quite territorial but the point is that we’re all on the same team and we’ve got to work together. So the CDO should work with marketing for customer data, HR for colleague data, finance for business intelligence data or whoever, and start to build an iterative picture.”

She adds that while a CDO or equivalent position may be tasked with a large infrastructure project such as building a group-wide DMP (data management platform), it doesn’t necessarily have to house every single data source from day one. Instead, a CDO should oversee incremental change across the company.

“My biggest piece of advice to CDOs is that you need to be a brilliant data person in one sense, but you’ve also got a job to do in being a brilliant people person,” she says. “Those people are gold dust.”
Regulation: Preparing for GDPR

Putting the right data operations in place will be essential when the European General Data Protection Regulation (GDPR) comes into force on 25th May 2018. The rules, which amount to the biggest shake-up of European data protection regulation in two decades, will change the way businesses are legally obliged to process and handle customer data.

Some of the key changes include giving people easier access to the data that companies hold on them, as well as more explicit obligations on organisations to act transparently and obtain the consent of people they collect information about.

In addition, GDPR will bring into force a much harsher fines regime for companies that are found to have misused personal data. The most serious breaches could command fines of up to €20 million or 4% of a firm’s global turnover (whichever is greater) – a significant increase on the £500,000 penalty the Information Commissioner’s Office – Britain’s data regulator – could previously implement. Although the UK is leaving the EU, it is expected to pass legislation that will comply with GDPR to ensure uniformity with its EU trading partners.

It is incumbent on all businesses to put group-wide practices in place to ensure compliance with the new rules. Ian Small believes companies should ask themselves fundamental questions about the relationship they want to have with customers – including whether they view themselves as the ‘owner’ of customer data, or just the ‘guardian’ of the data.

“What moral rights do you ask your customers to grant you around their data?” he says, rhetorically. “Do you simply provide safe storage of their data, to leverage it only on their behalf? Can you use their data to benefit them, to benefit other customers and to benefit your organisation? Or do you want to assert that it is yours to exploit however you see fit – at least within the limits of current law?”

“Most organisations today are looking inward, navel-gazing on tactical organisational issues, looking outward only towards short-term legal issues driven by the rapidly-evolving privacy legislation. In fact, the long-term interaction between consumer attitudes around personal data and their data exhaust and the interests of your business should be the basis of the most strategic data questions your company is asking current law.”
Talent requirements

Sophie Birshan, head of retail analytics and insight at John Lewis, believes that every employee across a business has a responsibility to handle data in the right way. The retailer has appointed a data steward and has established the process and responsibilities for overseeing compliance with GDPR.

Indeed, she highlights the multitude of functions that collect data across the company, from logistics and distribution to HR and customer service. In this sense, everyone has some responsibility for ensuring data is well managed.

“Everyone needs to be thinking about how to get more value from the information they gather,” Sophie notes. “That means capturing it better, and making sure that others across the business can access, interpret it and join it together.”

Sophie agrees that it is difficult to find enough people with the necessary skills to support a business’s ever-growing data needs. “The people that are difficult to find are the communicators,” she says.

“It’s not difficult to find people who can build an amazing model, but it’s difficult to find people who can understand the commercial requirements and the implications for the business of the model, and then drive it through to get it implemented.”

Sophie also advocates a test-and-learn approach, in which companies use data and machine learning to trial new strategies on a smaller scale, before rolling them out. “We take an incremental approach to each algorithm – we’ll introduce one to provide better search results for customers on our website, for example, and then gradually over time we’ll optimise that to make it even better.”
AI and the future of data

Driverless cars. Smart home appliances. Increased automation in every conceivable area of our lives. The future of AI remains unknown, but it is clear that machine learning algorithms – and the computation that powers them – are advancing all the time.

Meanwhile companies such as Google’s DeepMind are leading the race to develop human-level artificial intelligence and potentially even super-intelligence above the capabilities of human beings. Technology is developing at such a rate that the likes of Stephen Hawking and Tesla’s Elon Musk have warned that AI could ultimately lead to the destruction of humanity if the right checks and balances are not put in place.

Political and business leaders must think hard on these existential questions, of course, while also exploring the huge, untapped potential of AI. Inevitably, many of the world’s biggest companies are investing heavily in AI as they look to meet consumers’ appetite for ever-smarter tech, and as they seek to make their operations more efficient and thus more profitable.

Asda’s Andrew Mann notes that in light of all the pressures facing retailers – such as tighter consumer spending power and the impact of Brexit – AI will have a purpose first and foremost in generating efficiencies that boost the bottom line.

In food retail, for example, he believes these back office applications should come ahead of consumer-facing applications for which there is still relatively little demand.

“Getting the stock levels right so you don’t have to mark anything down is going to be very important,” he says. “But serving customers at the checkout with real, friendly people provides added-value in a different sense: it’s something customers still like to see, so you wouldn’t stop doing that either.”

Jonathan Wall at Missguided argues that for all the potential of AI, human agency – and the ability to apply the technology correctly – is still paramount. “AI and machine learning will accelerate the ability to utilise data in real time, but often the real skill will be coming up with the hypothesis in the first place and then putting AI and machine learning into play based on what output you are trying to achieve.”
Corporates: Start prospecting for ‘The New Oil’ now

Data will define whether you survive or fail... assuming the computers don’t take over first
In November 2017, The MBS Group was honoured to host an event with our partners LocalGlobe on the potential for data to change every aspect of life as we know it.

At Google UK’s stunning King’s Cross headquarters, we brought together more than 70 senior executives from the worlds of retail, private equity, government and venture capital, to discuss how artificial intelligence, machine learning and data science will make or break their institutions in the coming years. Our title was ‘The New Oil: Unleashing the Power of Data’.

But first, a fascinating statistic: since the 1st January 2017, more data has been created than the total amount created in the past 5,000 years. Not only that, of that infinite pool of numbers, statistics, habits and personal preferences, it’s estimated that the proportion that is actively being analysed at present stands somewhere between just 0.5 and 10%.

With such an incomprehensibly large database still left to mine, and technological capability accelerating at exponential pace, the opportunities to radically transform the world through data are practically endless.

Opportunities

The founders of three of LocalGlobe’s most exciting data-centric portfolio companies – Marc Warner of ASI Data Science, Tugce Bulut of Streetbees and Ankur Modi of StatusToday – demonstrated how their businesses are able to generate and analyse enormous corpuses of data at rapid speed, and then (crucially) devise tangible strategies that instantly and drastically improve efficiencies and reduce costs. And we’re talking millions of pounds, across any sector, deployed in seconds.

Indeed the room was in awe as Marc laid out the transformational impact that data is already having across every conceivable industry. ASI specialises in helping organisations to drive business value using artificial intelligence and big data, and he was not short of figures to show how all companies could give their bottom lines a significant boost by simply tapping the data they’re already sitting on.

“In six weeks a smart PhD student was able to increase the number of opens on an internet marketing firm’s emails by 50%,” said Marc. “With a fraud detection algorithm, we could save a big payments company in China $7m a year – just by using automated algorithms rather than people. In operations, by tweaking the amount of surplus staff that an airline had available at any one time, based on the actual number of people likely to take sick leave on that particular day, over the course of a year we could save them £20m.”
The idea that any business can use continuous advances in machine learning to turn enormous volumes of unstructured data into valuable insights is hugely exciting. Marc argued that we need no longer look solely to the giants of Silicon Valley for inspiration – particularly as the UK data and tech scene expands and thrives.

“Silicon Valley lives in a bubble – if you go over and spend any time with Silicon Valley people, you will very quickly realise that,” he said. “Our advantage here in London right now is that you can cycle 20 minutes in one direction and get to the centre of government – or cycle 20 minutes in another direction and get to the centre of finance. That’s simply not something that exists in Silicon Valley.”

Tugce at Streetbees also explained how her company’s innovative use of AI and geolocation technology has changed the way large corporates think about market research and data. Streetbees hires local ambassadors in locations around the world, asking them to upload pictures and videos of them interacting with branded products on apps such as WhatsApp. Conversations are steered to achieve brands goals, before AI is used to process the results and deliver actionable insights.

“We believe that traditional market research, and how [businesses] used to ask people questions, is no longer the best way to understand people,” Tugce said. “We went in front of a multi-billion-dollar food company and said ‘you know what, there might be another way to get to the results you want. It’ll be cheaper, it’ll be faster and most importantly it will be accurate.’ That was where our first discussion began.”

This drive to redefine the way big business thinks about its data is also at the heart of StatusToday’s model. The firm uses AI to process internal employee data, thereby enabling businesses to understand behaviours, simplify team management and detect risks and security threats.

Ankur, who was formerly a software engineer at Microsoft before leaving to set up StatusToday, suggested that the enormous business potential of these emerging technologies is drawing some people away from the big tech giants towards smaller, innovative startups.

“I left Microsoft because for me it was actually more exciting to leave,” he said. “In our team we’ve got people from pretty much all enterprise backgrounds. The single reason they join us is because it’s just that exciting.”

Navigating concerns

In the panel discussion that followed, chaired by LocalGlobe’s partner and co-founder Saul Klein, presenters and guests discussed the potential risks around data and artificial intelligence.

Not surprisingly, a huge range of issues came up for discussion – from the question of who ultimately ‘owns’ data and the role of governments and nation states, to the issue of data security and the risks businesses face from hacking, to the challenge of ensuring the right consumer permissions are in place so that brands are acting with transparency at all times. Of course the introduction of GDPR (General Data Protection Regulation) in May 2018 informed some of this discussion.
When asked about their biggest fear, the variety of responses from the panel highlighted the huge range of issues that companies today should be thinking about. For Ankur it was the challenge of “staying objective”, given that AI has a tendency to assume the biases that human beings already hold – and perhaps reinforce them. For Tugce, it was the role of technology in lowering the barriers to market entry – and how different countries can maintain standards of compliance as more and more startups emerge.

For those who know him, it will have been no surprise to hear that Marc’s biggest fear was particularly apocalyptic. “I’d say I’m most worried about the complete extinction of the human race within ten years.”

He wasn’t joking. If human beings fail to build in safety mechanisms for AI super-intelligence (a self-improving intelligence that will accelerate beyond human intelligence), the results will be catastrophic, Marc warned.

The key takeaway for individuals and organisations – regardless of whether you believe AI will outgrow human intelligence and destroy humanity as we know it – is clear. “Digital transformation” won’t cut it anymore. Hiring a “digital native” or “tech savvy” executive won’t either.

The companies who survive this – the largest shake-up of the status quo since the last industrial revolution – will be those who understand that what’s required is ‘Total Transformation’.

It’s not so much that “we’re not in Kansas anymore”. This is a totally new planet, and one whose success stories – be they companies, organisations, individuals or nation states – will all share the commonality of successfully harnessing the unparalleled power of data.
So where to go from here?

There’s clearly no single strategy to ensure success or survival in the rapidly-evolving future, but all of our research - qualitative and quantitative - shows that companies who harness the competitive advantages of a proactive data strategy will succeed, whilst those who don’t, simply won’t.

As the interviewees in this paper demonstrate, there are clearly divergences over how this should be achieved. That said, everyone agrees on the need to fully analyse the data that companies already collect. What you have, you must hold.

Transformation is most tangibly realised through the new customer relationships data facilitates. We can now replace the vague mass segmentation techniques of old with highly-personalised and targeted communications and insights that can boost customer acquisition and sales in real time. We can turn every single customer into an individual we understand on a deeply personal level, allowing a brand a much more meaningful engagement than has ever been possible.

And beyond customers, data enables businesses to make efficiencies on an equally transformative scale across all aspects, from supply chain to inventory to workforce management.

This technology is available today, and only growing in its abilities and power. But as with any high-performance sports car, to get the best out of it requires a world-class driver and support team. Tech without talent is simply a waste of money.

While an increasing number of large corporates are hiring board-level chief data officers to lead their data strategies from the very top, others continue to split this responsibility between the IT and Marketing departments. Others still have placed these duties with other board-level positions such as the Chief Customer Officer.

There’s never been a greater need for digital talent at the executive level, regardless of how this is configured. Revolutionary technologies like machine learning and artificial intelligence will not wait around for companies to catch up, and in this world of complete change, we can expect many more regulatory requirements, beginning with GDPR in May, in response.

The companies destined to thrive in the data-rich future will be those who not only build around the high-performance sports car, but who ensure they also build the equally high-performance support team to extract the value and educate the rest of the organisation on its unharvested potential.

Because, ironic as it sounds, for now at least, artificial intelligence requires exceptional human intelligence to really deliver.

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About The MBS Group
Founded by Moira Benigson 30 years ago, The MBS Group is the leading sector-specialist executive search firm covering all consumer-facing industries. Our clients consider us trusted advisors, partnering with them on critical leadership roles that make a difference. We work at board level and on executive positions across all functions of strategic importance to our clients.

About the Tech & Digital practice
MBS took on its first digital search in 2000 and has continued to advise businesses on their digital challenges and strategies ever since. Today the Tech & Digital practice has a broad range of consumer clients including start-ups, scale-ups, pureplay digital businesses and companies looking to implement digital transformation.

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About the author
Stephen Rosenthal joined MBS after a decade working in governmental and technology communications. Over the course of six years with Google, he led the UK Public Relations team and was later promoted to create and lead the EMEA Social Media team, working directly with business, media and a broad range of industry contacts. Stephen also established the Campus London project, the UK’s largest early-stage incubator hub.