Year of Digital Compendium

What they said about the Year of Digital

"The Year of Digital was a great additional benefit for our members. Many consultants who previously had little engagement with the Association were galvanised by it. The quality of the discussions, the level of engagement with clients, and the quality of the articles produced during the Year are things we can be very proud of."

Stephen Cavanagh, Mott MacDonald, MCA Vice President

"We were very pleased to attend The Digital Disruption CBF event in October last year – not only did this event provide a pulse check on the latest thinking around 'Digital', but it enabled us to interact directly with both buy and sell side organisations. The insights around the types of consulting services our customers are investing in were valuable and prompted good discussion, both during the breakout sessions and at the subsequent networking event."

Tom Archer, MD, Bonhive

"I've lived the Digital Revolution for six years. The Year of Digital was a great mechanism to bring ideas and people together. Digital is a leveler - experience, hierarchy, age are irrelevant. All in all, I thoroughly enjoyed it."

Rob Price, COO, Worldline

"I was delighted to participate in a round-table with a group of MCA experts on digital during their Year of Digital. I took away a mass of insight and new ideas from the discussion. Digital is clearly now central to our economic competitiveness and social success. It will also transform the way in which we carry out the role of government and make the public sector much more cost effective. The MCA played an important role in bringing politicians together with this important community of experts and practitioners."

David Laws, Minister of State in the 2010-15 Coalition Government

"The Digital Catapult Centre was delighted to host two events with the MCA as part of its Year of Digital and our launch season. The events brought together budding digital entrepreneurs with experts in Big Data and Cybersecurity and so were right at the heart of what the Digital Catapult is set up to do."

Alex Vail, Head of Events, Digital Catapult

"The MCA Year of Digital was a great way to get business to reflect on the role of consulting in the Digital value chain. Our event on Buying Digital brought business and consultants together and was an invaluable primer in the challenges Digital presents the thoughtful purchaser of advice services. "

Paul Vincent, VP Operations, Kelly Outsourcing, former MCA Consultancy Buyers Forum Chair

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Chief Executive's Preface

The MCA's Year of Digital was launched with a lively public debate in July 2014. Our expert panel of speakers included David Willetts, then minister for science and universities at the Business Department, Elizabeth Varley of TechHub, and two of our industry's outstanding management consultants, Rachel Barton (Accenture) and Carlo Gagliardi (PwC).

The debate helped set our agenda. We were keen to assess how important Digital is to our economic future – and present – as well as to understand the role that consulting plays in its development. This publication confirms the message we heard most powerfully then: Digital represents a fundamental shift in our economic story – as powerful, our audience argued, as the first industrial revolution – and consulting is key to its future.

At the time, some friends had raised doubts. They argued that Digital was a bit 'yesterday's story'. After all, an entire generation of 'Digital Natives' had by then entered the workforce and, for most companies, Digital was just a fact of life.

And, at the other end of this spectrum, we found business leaders who saw Digital as simply a further phase of technological innovation – albeit, perhaps, more exciting than some in the past - and who suggested that it was unlikely to disturb the fundamentals of good business practice.

As the year progressed, these doubts faded. We discovered huge levels of interest amongst the clients of consulting firms across all sectors, including government, as well as amongst policy-makers at local, national and European levels. And it also became clear that management consulting was pivotal to the development of Digital throughout the economy, putting our member firms at the crucial junction box where technological change meets business effectiveness and decision-making.

By the time that the Year concluded – around 15 months after it began! – the MCA had convened 17 events and published over 60 articles, blogs or other pieces of insight. They have been brought together in this compendium.

Congratulations to everyone who contributed their thoughts, knowledge and experience, and particularly to Paul Connolly, Director of the MCA Think Tank, who commissioned, inspired and marshalled them.

Digital clearly marks a step change for business and the wider economy. It has the potential to bring public services far closer to the citizens who use them. Digital can make us all more efficient and productive, but also expand our horizons and enrich our lives. And, truth be told, we are only at the beginning of this adventure.

In an early survey of leading business people, we found that, while most Board members recognised the importance of Digital, a far smaller number felt confident that they could take the right decisions for their organisation to maximise the potential benefits or guard against disruptive competitors.

We hope that the MCA's Year of Digital has helped broaden understanding, provoke new thinking and explain the value that the UK management consulting industry brings to this vital arena. It is going to be an exciting journey!

Introduction: Digital will change everything. Even the business of consulting

MCA Think Tank Director and Year of Digital Coordinator, Paul Connolly, explores what it means for clients – and for the consultancies that work with them.

Digital is everywhere. Everyone is talking about it.

So what is it?

Some commentators see Digital as simply an intensification of well established IT and technology themes. Digital technologies are just new mechanisms that can help deliver traditional business goals in a different way – like railways or the Penny Post were in the past. The key is to fit them into coherent business strategies.

But others see Digital as far more wide-ranging. Describing it in abstract, even mystical terms, for them Digital represents nothing less than the wholesale transformation of global capitalism.

In July 2014, we launched the MCA Year of Digital. This was prompted by the emerging evidence of the range and depth of our member firms' involvement in Digital. In 2013, 25% of consulting activity was Digital, making it easily the largest expert service provided by our members. (And when we tested this with even more rigorous criteria for the following year, the share rose to 27%.) Services to support enterprise and government in understanding the potential of data, the Cloud, social media, gamification, virtual reality, artificial intelligence and the issues of cyber security are now widespread across consulting.

Indeed, MCA firms have a shrewd appreciation of these topics. They recognise that Digital is utterly transformational. They know it will change everything. But unlike some of the Digital hucksters in the blogosphere, they are not pedalling snake oil. They want to demystify Digital, translating its radical potential into the language of opportunity, efficiency and profit that business leaders understand.

And they do need to understand it. Digital is serious business. The rapid proliferation of mobile technologies has created new expectations among consumers about how they can access products and services. These technologies shorten the "distance" between producers and consumers, calling parts of the traditional supply chain into question. Producers and retailers who do not rise to these challenges will struggle.

Yet the opportunities are enormous. Longstanding paradigms, like highly federated enterprises, with specialised centres, loosely combining for specific purposes, or multilateral business networks that promote collective value, are now increasingly possible through Digital. Telecoms, TV, internet: Digital means that these now operate through identical networks, opening up unprecedented opportunities for market convergence and diversification. Using Big Data analytics, retailers can move beyond understanding customers at the point of purchase into a fuller appreciation of their wider lifestyles and desires. They can then tailor products, understand trends, and even reinvent the services and consumption experiences they offer using increasingly agile systems.

Agility is the name of the game. Business's ability to shift direction and respond to consumer desires need not be hamstrung in the future by long-term IT contracts that are dated the moment they are signed. Instead, they will develop short-term relationships and highly adaptable, even discardable, solutions. Indeed, tomorrow's businesses won't necessarily have rigid long-term strategies themselves. Their business life-cycle will comprise the threading together of a series of short-term moves.

All very exciting. But also threatening. A fast-moving environment creates value fast and destroys it fast. Those who don't keep up will go to the wall. Look at Nokia. Look even at the pressure Apple is under from Samsung. Today's insurgents may be tomorrow's dinosaurs. Government wrestles with how to create a business environment that can help turn the latest small start up into the next Apple or Facebook. Yet perhaps the current

reality is one of restlessness. Entrepreneurs may have to accept the limited shelf-life of their latest solutions and move quickly onto the next one.

How do managers of traditional industries handle the bewildering complexity of change when even those in the new industries admit to constant future shock? Can they live with the burden of uncertainty? And can they cope with some of Digital's inherent problems, like data storage and security, especially when a whizz-kid computer hacker probably understands a corporation's systems better than the corporation does? Can they secure the skills they need to meet the Digital challenge? How can they turn the data they hold on customers into value? How can they (and governments) simultaneously respond to the concerns some consumers have that data gives the state and businesses too much power over their lives? Should citizens 'own' their data? And if so, should this be enshrined in law?

The consulting experts I have been engaging with throughout the Year of Digital are dealing with these challenges themselves. They are working through how Digital affects our own industry. Conceptions of value clearly must change, as the dynamics of product, sale and consumption converge. But consultants may also need to change how they go to market. Most basically, if clients are preoccupied by Digital and need to understand it, consulting firms will need an adequate supply of suitable experts. This will raise questions about the recruitment, retention and deployment of those skills. But consultants are also reassessing how consulting is done. Programme managers will have to be very light on their feet to respond to the real-time data Digital systems can now bring them. Process improvement specialists may need to adapt to competition from automated sites that allow firms to load up process descriptions and receive off-the-peg advice. If businesses are moving fast from tactical opportunity to tactical opportunity, swiftly and cheaply, this could transform strategy consulting and business planning. It could also impact the duration of business engagements, with implications for how consultants manage client relationships.

MCA firms are applying the learning they glean from transforming their own consulting practices to assist clients transform their operations. They are supporting businesses in radically changing how they interpret customer needs and how they define their service offerings. As such, MCA consultants are doing what they have always done. They are helping businesses in practical terms. They are explaining what all this Digital stuff means for clients, how it can benefit them, in comprehensible and concrete terms.

This compendium comprises a selection from the 60+ articles produced throughout the course of our MCA Year of Digital, which ran across 2014 and 2015. They represent the insights of member firms and other experts into the challenges of Digital. Here, business leaders, policy-makers and commentators can find an unrivalled body of knowledge on what the radical challenges of Digital mean in practical terms and how they can rise to those challenges.

What is Digital?

—Rob Price, former Head of Digital at Atos, now COO of Worldline, examines the fundamental question at the heart of the MCA's Year of Digital

To use the words of Neelie Kroes, Head of European Commission's Digital Agenda, 'Nearly every business is a Digital business now'. I'd be tempted to drop Neelie's "nearly". We're all Digital now. But what does that really mean? What is Digital?

According to a recent MCA survey, 94% of UK senior executives see Digital as important or very important to their business. I wonder what the other 6% are thinking. 93% of them say they understand Digital very well. And yet, when pressed on what Digital means, they each described it very differently.

Whilst Digital has become the hot economic topic, many will feel that we have lived for some time in the Digital Age. Rapid transfers of data across the internet have vastly improved transaction speeds, enhanced organisations' knowledge bases, and empowered consumers. Why only now have we seen this explosion of focus on Digital, on the rise of the Chief Digital Officer, and on the necessity of Digital Transformation?

Digital is NOT a marketing campaign, a website, a mobile device, '1's and '0's, or about getting rid of paper. It is the collective mindset of a connected world, a culture, an expectation of immediacy of service and access to information as we have become accustomed with the arrival of ubiquitous connectivity. Digital is an opportunity to improve. But it is also a disruptive threat that enables others to compete with you at a much lower cost of entry. To think Digitally is to re-imagine your business from the perspective of 'what the web would do', paying no heed to the legacy and accumulated years of experience. Digital operates at sprint speed rather than marathon pace.

The most obvious effect of Digital is in the people around us. Globally there are now over 4bn mobile phone subscribers. Many, even in emerging economies, have smartphones. [1] Take the commuter train. Twenty years ago, people would be reading the newspaper, a book, or possibly listening to their Walkman. Now, commuters play music, read a personalised media digest, watch a film, send emails, work, text, chat, and tweet – all on the same android.

So to some degree Digital is an enabler. People could do many of these things before the Digital age, or approximate them, but not all, and not as easily, and not necessarily on the train. Now Digital gadgets allow them to. Businesses can respond to this. By recognising what consumers want to do, and what products or services they want to consume, they can secure competitive advantage by creating innovative business models that engage consumers individually, immediately, and intelligently.

But the fact that consumers can do so much wherever they are creates an expectation, a culture. [2] All of our commuters can use their devices to find JFK's birth date, to get news as it unfolds, or to view page 96 of War and Peace. They can access tracks from their entire music collection stored in the Cloud. Some can reprogram their domestic TV, their heating or their robot vacuum cleaner. Being able to do this in some areas of life creates an appetite to do it in others. It also creates new appetites. People want to access services, their medical records, buy a car, keep tabs on their children, receive the best deals on insurance, holidays or oven chips, book a safari, arrange a mortgage, all at the touch of button. We can listen to music while travelling. But what about mixing it? We can play games in the back of the car. What about inventing them? And if I can network with people while sitting on the train, why should I commute at all to my dull old-fashioned, City-based workplace? Why shouldn't I work at home, or in the café, or on the beach? If Digital has already become a key tool for creative professionals

like musicians, visual artists, architects, movie makers, car manufacturers, and news providers, how will it impact others in enabling them to work without constraint?

Digital matters to every sector of the economy, from financial services and retail to entertainment and utilities. A pork chop may be a pork chop, but buying it online, selecting your favourite retailer or even your preferred pig farmer, is a Digital experience. Banks probably still have vaults. But the security of their online transactions, and the user-friendliness of their touch free payment apps and self-managed accounts, are where their customers now really experience how good and secure they are. Furthermore Digital technologies and behaviours enable disruption of established industries with a low cost of entry.

Consumers with the latest Digital devices, and especially the Digital "natives" who have never known anything else, have high expectations of service speed and utility. This creates an enormous demand pull that producers must respond to.

But even this is not the full Digital picture.

Digital facilitates business models that have long been valued but have existed more in theory than practice. Collaboration between businesses in alliances and networks has long been seen as a route to efficiency and value creation. The federated firm, with supple and loosely integrated centres of expertise, which combine to address emerging problems, overseen by an information-rich centre, is an ideal business model. [3] Removing tiers of bureaucracy within firms and reducing the "distance" between consumers and products by shortening supply chains have long been extolled as good practice. And of course understanding customers' needs is central to successful commerce.

Digital makes all these things more possible than before. Digital provides the agility that firms need to modernise. Digital facilitates collaboration through accelerated information and data exchange. It helps firms become confederations of expert centres that use Digital to work together. It forces firms to think about their specialisms, and to identify how to access complementary expertise through virtual collaboration, either from partners or as likely their customers.

Digital is revolutionising the relationship between producers and consumers. Digital lets consumers buy straight from manufacturers and even specify product requirements, like customised Coke bottles. Additionally, Big Data analytics can allow firms not only to understand the consumption patterns of customers and develop products accordingly. It can also help them gather consumer lifestyle information and so anticipate customer need, understanding a product requirement perhaps even before the customer does. We see this increasingly through prescriptive analytics, where expected behaviours drive operational decisions – for example, Amazon delivering your expected orders locally such that they can deliver same day.

Digital is allowing all this to be done at incredible pace. The days of clunky, long term IT contracts are gone. Now supple systems, Cloud-based data storage, bespoke applications and off-the-peg, highly adaptable software, let firms react to new challenges quickly.

The effects of Digital are wide-ranging, very evident yet unpredictable. Digital enables old things to be done in a new way. It allows new things to be done. It creates new understandings of what economic value is by making novel purchasing and consumption patterns possible. Telecoms, retail and entertainment are all converging. High street supermarkets are becoming banks, banks are becoming coffee shops. Consumers expect their needs to be met in more holistic and integrated ways.

In short, Digital is creating a new capitalism, with new opportunities and new challenges. Consumers' Digital expectations drive innovation. Producers and vendors who do not adapt to these expectations will struggle. Supply chains will be shortened, leaving some parts of traditional distribution high and dry. Pace of change and innovation are creating opportunities for new firms and new products to emerge. But value is being destroyed just as fast as it is being created. No one is expected to survive forever, not even the biggest firms. Digital is already destroying Digital, as the death of the Digital camera in the face of the Smartphone/app combination is showing. Data-based business models create storage, management and security issues. For the dyed in the wool 50-something board members, this may all seem very alien. For school-leavers, the Digital economy may present skills challenges which educationalists have not caught up with. What is the future of print media, journalism, the music industry, film? Can they survive the Digital onslaught? Or is it simply the Survival of what the consumer wants!

Yet Digital is exciting. Digital entrepreneurs even seem prepared for a model of capitalism where products and even firms rise quickly and fall quickly, solving problems that are temporary, while their staff and capabilities move onto the next challenge, even on to a new business, with low start-up costs and low barriers to entry. Fast-moving, the Digital economy may present the most accelerated, lubricated and even the most perfect form of capitalism yet.

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[1] Mobile Service Industries, Technologies, and Applications in the Global Economy, In Lee (ed), IGI Global, 2013, p. 104

[2] In Redefining Business Models: Strategies for a Financialized World, Colin Haslam, Tord Andersson, Nick Tsitsianis and Ya Ping Yin, Routledge, 2013, pp. 204-16the authors refer to this as the Digital Lifestyle Business Model.

[3] http://blog.atos.net/blog/2013/02/19/the-firm-of-the-future-just-is-agile/
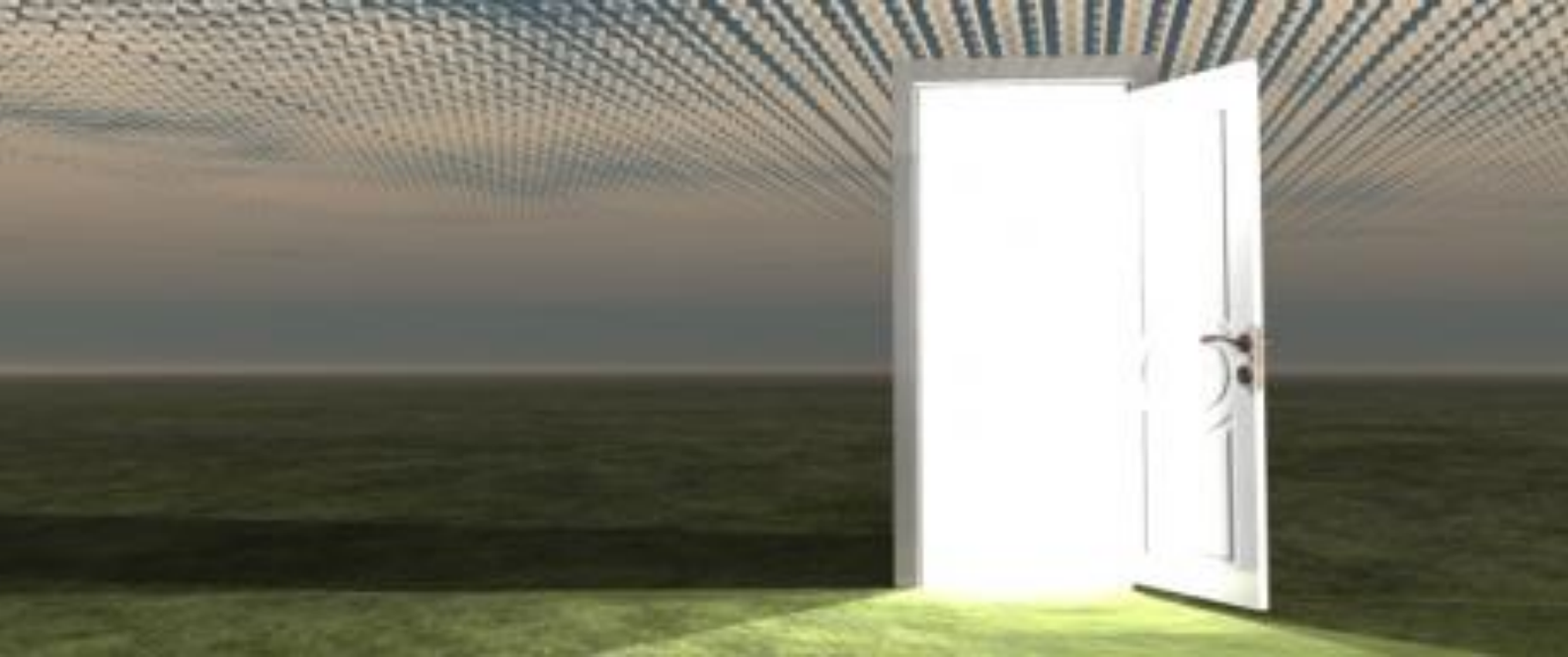
Businesses need a strategy for the Digital Age

—Carlo Gagliardi, Partner at PwC, believes Digital is changing not only how value is distributed, but also how value is created.

"Digital," Carlo observes, "has already collapsed supply chains and shortened the distance between the buyer and the product. Yet eCommerce can still generate advantage. Do organisations understand Digital Natives? Are they optimising Digital interactions in today's world of smart devices with the same computing power as thousands of Apollo 11 computers! Digital should allow much more frequent and tailored interactions with customers – and new possibilities for eCommerce.

"Once businesses get that right they can move onto the new frontier of eOutcomes." Carlo suggests that combining Big Data, smart devices, sensor technology and agile capabilities can create new orders of value that help customers move towards and realise their goals. Take car owners. Usually, they buy or lease the car, tax, insure, maintain and clean it. Their real goal is having the freedom and convenience of going from A to B by car. Digital could simplify that for them, so they don't have a plethora of supplier relationships to manage. And why stick to ownership or 3-year leasing? What if the customer wants a different car every week? Or even different modes of transport?

"This is a new Economy of Outcomes: enabling a goal a consumer has, rather than manufacturing a new product. This is a new kind of value, completely impossible without Digital technology."

But Carlo suggests that businesses wanting to exploit this new potential will need a certain 'Digital Mastery'. "The Economy of Outcomes is exciting and revolutionary. But you need to get the basics absolutely right. Understanding how to get best advantage from eCommerce is crucial. If you are a new entrant, you could leapfrog the market straight into the Economy of Outcomes. But if you are an established business, you need to work out how to use eCommerce first. Then you can have a go at making money with eOutcomes."

Carlo believes that "Businesses don't need a Digital strategy. They need a business strategy for the Digital Age. So consultants should recognise that Digital is more than just a channel. It's new value." He suggests that economists and policy-makers haven't caught up with this. "The Digital economy is creating new forms of value that aren't captured by traditional sectorial measures of GDP. An increasing amount of unconventional and highly innovative services is emerging every day, and many of these create value by making people achieve desired outcomes

better - rather than just by executing a transaction. These new forms of value creation aren't even truly factored in to our measures of growth."

In the coming years, Carlo intends to work up a 'GDP+' model to capture these new forms of value, so that the innovative potential of Digital, and Britain's centrality to it, can be quantified and recognised.

Digital is the biggest opportunity for UK business since the Industrial Revolution say consultants

—MCA Annual Debate on 11 July 2014 also highlighted that improving graduate skills is key to capitalising on the Digital revolution...

The MCA Annual Debate, Our Digital Future, launched the MCA's Year of Digital, a series of high profile events, research, reports and articles. In addition to the Rt Hon David Willetts, MP, expert panellists in the debate were Elizabeth Varley, Chief Executive of TechHub, Rachel Barton of Accenture and Carlo Cagliardi from PwC.

The rise in Digital consulting was recently highlighted by MCA data which found that the Digital & Technology service line is growing. In 2013 it grew by 6% to 25% and again in 2014 rose to 27%.

The debate stressed the radical importance of Digital to the economy. Two thirds of leading management consultants (67 per cent) and client attendees at the event agreed that Digital is the biggest opportunity for British business since the Industrial Revolution. However, due to its rapid development, finding the appropriate level of Digital skills amongst graduates is an increasing problem for the economy.

This point is reinforced by an exclusive MCA survey of Britain's boardrooms, which reveals that, while 94 per cent of senior executives view Digital as important or very important to their businesses, a fifth report that the quality of Digital skills amongst graduates is average to poor.

David Willetts MP the Minister for Universities and Science highlighted the impact of the UK's unusually specialised education system. He said: "There are still too many horrific decisions at 16 in our unusually specialised system, where people give up subjects that no other western advanced country would give-up.

"In this Digital world, having the English that enables you to communicate well, a second language, some basic understanding of maths and physics, and a broader base for longer will be very valuable."

Elizabeth Varley added:

"The idea of recognising when something isn't working rather than feeling so invested in this decision that you've made that you can't say to your boss 'I think we've got this wrong I would rather try it this way' is a skill that we're not teaching. We're afraid that we will be penalised either socially or financially, and we need to get over that in order to innovate better."

Do business leaders get Digital?

The recent MCA survey found that almost all executives say they understand Digital very well or well; but they have a very wide range of understandings of what it actually means. The expert panel and the vast majority of management consultants (91 per cent) felt that business leaders don't get Digital, and there is limited understanding of its role and potential across Britain's boardrooms.

Rachel Barton said: "Boards do recognise that Digital is important. But I do not believe that boards understand it and they certainly do not recognise the fundamental shift it is going to have in their organisation beyond the introduction of a new channel."

Government's role in Digital

Both consultants and expert panellists also agreed that government has an active role to play in Digital.

David Willetts said: "When we look at 'the internet of things' for example – and you want your BMW to communicate with your fridge - to communicate with your thermostat - in order to make all of this to happen you need amazing standards and interconnectivity.

"So both high level science that drives significant capabilities and sufficient investment to ensure that you have a role in standards setting are the two things that governments can also do."

The panel also argued that government can do a lot to bring Digital closer to citizens, particularly through its own role as a service provider and in promoting greater connectivity.

Personal Digital data as a valuable currency – Government's role

The debate threw up some very radical ideas about the future of Digital in empowering citizens and consumers. Expert panellist Carlo Gagliardi of PwC suggested that personal data could become a personal asset and a valuable currency, like money. He said: "Today most of the Digital data that we create is actually legally ours but the companies that hold this data can do a lot of things with it. But if people get control of it, then it can become like currency that they deploy in order to achieve a specific goal, or to get better goods and services.

"I believe Central Government could play a key role in making people more aware that data's potential for them could translate into some valuable gains in just a few years, and in some cases even earlier."

The MCA's boardroom survey also found that executives would welcome advisory support to understand its challenges in the future. Paul Connolly, Director of the MCA Think Tank, who chaired the debate, concluded: "Digital is creating uncertainty and unpredictability, but it also creates value fast. It has also reduced the costs of risk-taking, so firms can mobilise new ideas quickly and cheaply. However, Britain's boardrooms are recognising that skills are becoming short in supply amongst new recruits, and they are also requiring specialist external advice to guide themselves through the challenges of Digital.

"That is why MCA Management consultants are at the heart of Digital - working on major programmes to Digitise products, provide research and development capabilities for new ideas, and stress test firms to see if they can withstand Digital disruption and capitalise on its opportunities. Indeed, no industry is better placed than ours to grasp and articulate the scale of the challenge – even threat – that Digital represents, as well as its manifold and exciting opportunities."

Consulting Case Study: BearingPoint with Jaguar Land Rover

—An insight into the MCA Award's Digital & Technology Project of the Year 2015

Over the last two years, BearingPoint have supported Jaguar Land Rover (JLR) to design and deliver their first connected cars. No templates exist for designing and delivering a connected car, especially those with embedded technology. So BearingPoint provided a diverse team with depth and breadth of both management and technology consulting expertise to address the many known and unknown challenges of launching innovative Digital products and services.

The joint JLR and BearingPoint team successfully launched the connected car and a suite of Digital products. These include: automatic emergency call functionality that calls the emergency services and sends the vehicle's location; breakdown call that contacts the roadside assistance provider and sends the vehicle health and location data of the car; a smartphone app with vehicle information such as where it is parked, how much fuel remains, what journeys have been taken, the car's security status; and a stolen vehicle tracker.

BearingPoint developed assets that were key building blocks for the solution design. These included the programme governance, the complex architecture, the end-to-end customer experience and processes, the test strategy, and the customer support and operations model.

From a technical perspective, they mapped the physical messages exchanged by the car and the Cloud to the logical business services they represented and built test rigs to enable validation and testing of message flows for different use cases and technical scenarios. They also took responsibility for designing the rules engine that determines the configuration of services on a vehicle. They manage the configuration controlling how live vehicles behave depending on which market they are in, what subscriptions have been purchased, what capabilities the vehicle has and what legislation is applicable.

BearingPoint also developed the approach for a market launch which required project and change management, business model development, asset and process localisation, service provider selection, contracting and technical integration, development of terms and conditions and data privacy policies, in market testing, dealer training, customer support training and reporting.

They have so far supported the implementation into 3 markets with 2 different business models and 7 service providers. The coming year sees the team continue to support the launch of new features and an accelerated rollout across additional markets.

A BearingPoint consultant supported the first handover to a customer and witnessed the delight as he experienced the connected services for the first time. Early indications show very positive feedback from dealers and customers and independent recognition by analysts on the usability and design of the solution.

Every consultant involved says this is the most challenging, innovative and exciting project that they have worked on. It is unusual to have the privilege of being involved in the full lifecycle of taking such a pioneering technology to market and see it in the hands of real customers.

A shift in control is creating new challenges for Marketing

—Lucinda Peniston-Baines of Roth Observatory International sees the rise of Digital creating new challenges for her clients

"Digital has shifted the balance of brand control towards the consumer," says Lucinda. "The Chief Marketing Officer is now expected to do more than blanket customers with brand awareness and messaging. Now they must collaborate with other departments to place the customer experience first, right across the full range of traditional and Digital channels including social media."

Often that "experience" needs to be dealt with in real time, as would a real conversation. Take the case of a cashpoint failure by a major bank. In the past that would have led to a lot of complaints, to be handled in retrospect, and the outside chance of an adverse news headline. Now, within minutes, the problem is trending on Twitter.

"In this scenario," suggests Lucinda, "the CMO is faced with a two-directional issue to address. They need to manage the expectations of the consumer. But they also need to collaborate with the operational function within the firm that looks after cashpoints and perhaps call centres. This integration role is new and demanding. Some of the consulting growth we are seeing stems from helping Chief Marketing Officers and their teams to understand how to manage it to deliver a seamless customer experience, as well as ensuring that their range of external agency partners (and their own in-house team) contains the right mix of expertise they need."

Chief Marketing Officers' relationships with Chief Information Officers (increasingly rebadged Chief Digital Officer) and Chief Finance Officers is also deepening. "Managing brand and marketing issues in the Digital Age both need new technology and also new capabilities. CMOs need to work with CDOs on getting the best technologies and analytics in place to understand their consumer and their brand's performance. They also need to work closely with CFOs to get marketing technology requirements in the budget."

Lucinda echoes the view of many across the industry that success for firms in understanding customer perceptions and marketing opportunities is a function of understanding their data. "This is about Big Data, of course. But actually within the Big Data haystack, what firms may be looking for is a small data needle –crucial piece of insight, in a tweet, in a blog, or even in something one of their own staff said, something that allows the business to see itself in a new light."

Businesses are getting hungry for this sort of information. Roth Observatory International helps brands identify and work best with agency partners that can help them navigate this Digital landscape. But there are also new, exciting, but little-known enterprises out there who are highly conversant with Digital analytics. "One of our most exciting projects recently was with Starcount, a new online platform that aggregates fans' social media content related to celebrities or brands. We're helping them source an agency partner to highlight their Digital data proposition to clients in ways that the increasingly hard-pressed CMO can understand and put to good use."

Consulting depends on the creative imaginations of the people who carry it out

—Alwin Magimay, Head of Digital at KPMG, looks at how consulting can supplement its people offerings with entirely digitised ones

"Consulting, even Digital consulting, depends on the creative imaginations of the people who carry it out," says Alwin. "But it's possible to extend the range of our offerings, and our client base, by creating new Digital applications and portals."

For example, KPMG has launched The C2FO Market, a new Digital supply chain finance platform to UK business. The C2FO Market is transforming the business to business loan principle, acting as a 'private exchange' between buyers and their suppliers who use the marketplace to increase profit and accelerate cash transfers between themselves, giving SMEs access to a new source of working capital. Existing supply chain relationships are enhanced and strengthened without the SME becoming a debtor to the larger enterprise.

Alwin suggests that there are other ways that he can use applications to bring services to the SME market by making them more affordable. "We're looking at how some of our core services, such as accountancy and tax services, can be provided in a basic digitised form for small and medium enterprises. As those ventures get larger, they will need more complex services, delivered by people. But if we've been able to give them access to a more simplified but top quality service through an application or a portal, then they will be more likely to choose us when they need something more involved."

Alwin thinks that we've only seen the tip of the iceberg in terms of being able to transform product offerings through this type of model. Whole areas of the economy, especially in the provision of services, could be disintermediated. "As we go forward, consulting will need to learn to leverage these sorts of products. That's going to mean changes in our skills base. We'll still need traditional analysts. But we'll also need people who understand Digital and can write code.

"But most important of all, we're going to need creative people, with fresh thinking and new ideas that can foster innovation in a connected world."

Digital means we need much more dynamic relationships with clients

—Andy Tinlin, Managing Director Accenture Strategy, is optimistic about the health of consulting in the Digital Age.

Andy Tinlin is increasingly seeing that most consulting demand now comes from businesses needing support to help them develop growth propositions. "Business leaders endured six years of restructuring and cost-cutting. That's a large chunk of anyone's career. They got tired of being tired. Now, they're seizing on the return of growth to the economy to look to the future."

And it is his view that businesses need consulting support at the moment in part because of gaps in their strategic and middle management skills. "While some firms held onto key staff during the tight years of the downturn, many shed expertise or didn't recruit emerging capabilities. Consultants are filling these gaps, often in response to urgent demands. Investment committees are now asking to see where businesses want to go next, and what their big plays for the future are going to be."

Consulting, Andy argues, is changing. It has moved from being a niche advisory business into an industry worth billions of pounds. "Increasingly, as our industry matures, we will need to move away from commodity sales into much more dynamic relationships with clients."

Digital is at the heart of Accenture's vision for the future, but so are people. Consulting will remain a business delivered by people, though certain bulk processes and types of analysis may be digitised. But the realities of the Digital economy and the changes it is bringing will mean that the consultants of the future will be different. Andy says that Accenture has no difficulty attracting people, but it needs to train graduate entrants, mature hires and existing staff to cope with the new realities of business.

"Clients need to look at options for the future, while also recognising that the future is unpredictable. Our role is to prepare them to meet that unpredictability, to ensure that they can adapt to change. So, our consultants themselves will need to be able to deal with ambiguity and uncertainty."

At Accenture's London Innovation Centre, clients are challenged about their own assumptions, their own dogmas, and encouraged to think about how they would react to a range of future challenges.

"The output of these sessions is not typically the old-fashioned strategic plan. Rather, we aim to help organisations to become more responsive, light on their feet, more innovative and more resilient. This will equip them to face the challenges of an increasingly fast-moving business environment."

Financial Services looks to consultants for their Digital transformation

—Chris Cooper, Chief Executive of Challenge Consulting is optimistic about the consulting market

Chris Cooper is optimistic about the consulting market – despite working in one of its more challenging environments, board-level advisory to Financial Services and Banking.

"Sentimental factors in the economy are now much more positive. Actuals are also more positive: UK GDP has increased and most of the ground that was lost since 2008 has been regained. Consumers and businesses are gradually feeling more confident about spending money. And that's all positive and is positively impacting consulting."

"But life in the 'new normal' remains somewhat unpredictable in these early days of recovery." Financial services, though a considerable source of consulting revenues since 2008, has only just started to scan the horizon and consider future options and possibilities. "Much of the activity in Financial Services has been focused on immediate demands: regulatory, compliance, relations with government, stress testing. Just when they start to breathe out, the sector hits the front page again and there's another round of banker bashing."

Nevertheless, Chris believes that confidence in the sector is improving in general and that the Digital transformation has already begun. "Digital is already a significant theme in the financial services space and will become increasingly prominent. This is positive for consultants.

"Challenge Consulting specialises in formulating and mobilising change. Digital is already a theme for us in our work in Financial Services, particularly as we help our clients work out how to change what they do as a result."

Young Consultants can lead the way with Social Business

—Social Business is a powerful way for organisations to put their employees at the heart of their business, says Sarah Hughes, Managing Consultant at IBM Global Business Services and Young MCA Steering Committee Member.

Social Business is a powerful way for organisations to put their employees at the heart of their business and amplify the value of their connections. Using social tools and new ways of working, companies can engage with employees and enable collaboration to drive change within the organisation. Research from IBM's 2014 global Making Change Work Study shows that organisations are already recognising Social Business's increasing prevalence.

How can Social Business be implemented to increase employee engagement?

An organisation can focus on increasing employee engagement using an application, similar to Facebook or Twitter, as a business enabler. These internal social tools can give employees the opportunity to have a louder voice in the organisation and to engage and inspire with their colleagues on a wider scale. The organisation can also give up-to-the-minute priority access to company news and information.

What are the benefits?

Organisations utilising Social Business can benefit from fresh, valuable ideas from those in the know (their employees on the ground). In turn these employees feel valued and motivated through public recognition of their ideas.

Social Business also provides new ways to mobilise and embed change and transformation faster, allowing employees to work 'smarter' and become more productive through knowledge sharing.

For example, Berlitz, the market leader in language and travel-related products, worked with IBM to create a global social platform for collaboration and knowledge sharing to help accelerate its globalisation, improve communication and enable collaboration. Breaking down boundaries with a social platform, Berlitz saw employees become more productive and accelerated the development of higher quality products in a third of the time.

Also, Cemex, the third largest building materials company in the world, implemented a social platform with IBM that led to new best practices and enabled Cemex to launch their first global brand of concrete. It enabled CEMEX employees worldwide to exchange ideas, resources, and expertise regardless of their geographic location, thus accelerating the rate of innovation across the company and speeding up the time-to-market for new products.

How can young consultants help?

Becoming a Social Business is not easy; it takes time and often involves culture change. A business wide adoption of any new tool is a challenge and needs to be looked at as a priority.

However, young consultants are in prime position to lead the way. Numerous studies highlight that young professionals enjoy and place greater value on collaboration in the work place and are familiar and confident with social tools.

Youth and gamification are the keys to 'getting' Digital

—Rob Price, COO at Worldline, believes that senior consultants must learn from the young and play their games

Digital is clearly the future and so Britain's Digital skills have come under the spotlight. The focus has understandably been on what we teach at school. The Government has begun to respond by introducing computer coding in the primary school curriculum. But while the skills of schoolchildren are important, Rob Price, former Head of Digital at Atos, now COO of Worldline, an Atos business, believes that there is a group of people in Britain who face, if anything, an even sharper skills challenge: those in work.

"These days a forty-something worker may have up to thirty years left at work," says Rob. "Yet they may have been educated before the omnipresence of computers. While they have caught up with some technology on the job, very few will have had formal Digital training. Meanwhile the Digital Natives all around them have an intuitive mastery of all sorts of devices and capabilities, such as gamification. The assumptions of the younger generation are making their way into the world of work and will eventually become the norm. How will those already in work keep up?"

Atos is addressing this problem by introducing a 'reverse mentoring scheme'. Initially, this aligned a Digital Native (graduate intake) with each member of the UK and Ireland Executive. The Digital Native would mentor the Executive team member on the use of social media as a communications and collaboration tool. In part, the programme considered what makes a good internal community in an Enterprise Social Network. It examined what a business leader in the organisation could do to interact effectively across the business. The result was immediate changes in the way Atos Executives and their teams work.

Based on the pilot scheme's success, Atos extended it to include all those within the Top 100 managers in the UK who were keen to opt in. Not everyone did, at first, with some respondents saying "I thought I was fairly digitally switched-on anyway". Rob suggests that this sort of reaction illustrates the challenge that Britain faces. "Superficially my age group may feel that it 'gets' Digital. Yet only when you truly appreciate Digital's power or disruptive opportunity it presents for individuals and organisations, can you determine whether you need assistance or not."

Rob explains that it's important to start with a position of openness and parity. He recalls his own personal experience, where his mentor, after a short silence, opened the discussion with "I'm not sure what I can tell you given your role." Despite these misgivings, Rob noted that "as soon as he started talking about his perspectives on what made social communities more effective, I realised that I did have something to learn from him. There is always something you've not tried, something you weren't even aware of."

Making the space to listen actively, to spot the insight, is often the challenge. Managers are understandably busy and need to deliver imminent results. Yet some have found the initiative valuable for the practical advice they could get – for example, how to access a corporate social network through their phone.

Kevin Wilkinson, SVP Human Resources in Atos UK and Ireland, described his experience as a positive one. "When the idea was first suggested, I was intrigued by the prospect of being mentored by one of our graduates. I've really enjoyed the sessions. They helped me personally in adopting new ways of working and

collaborating. Importantly, they also gave me a much better understanding of how our future workforce is thinking. The mentoring is still happening and is of real value to me."

Atos has also created another learning tool: an app for employees, codenamed Digital Ninja. "We built the app to act as a personal guide to Digital," says Rob. "It provides clues and links to training on 'known unknowns' and subjects that are likely to be good indicators of Digital understanding." Atos applied gamification principles to the app, setting new 'quests' and providing rewards. The approach has helped drive interest, engagement and adoption. "Our goal," continues Rob, "was to help more of our 10,000 employees in the UK to cross the Digital divide – and, by enabling them to deepen their own Digital understanding, to drive the Digital Transformation of our whole business."

In its recent submission to the House of Lords Digital Skills Committee Enquiry, the MCA commented on education issues and the need for the development of core Digital skills. It also raised other issues, such as the importance of combining technical accomplishment with creativity to get the best from the Digital opportunity. But following the lead of Atos and other members, our submission also highlighted the needs of the existing workforce. We are living longer and working longer. We need more training and development in any case. But Digital moves and changes fast. So our training needs to be less a matter of occasional courses and more a fluid, constant process of learning. MCA members are taking the lead in responding to this challenge. But the UK needs to tear up the training rulebook, as Atos has done, and develop new approaches to the Digital workplace training challenge – urgently.

In a Digital era, behavioural skill development and intellectual property do matter

—David Freedman, Associate Director, Huthwaite International asks what Digital means for the shape of business

Shortly before we all disappeared for summer holidays, I had the pleasure of attending the MCA Annual Debate: *Our Digital Future*. Among the panellists were tech entrepreneurs, consultants, and one (as it transpired later) outgoing government minister. It was a well-attended and lively discussion, and launched the MCA's Year of Digital.

The MCA had done some research. As well as asking the audience to express its views as e-votes during the evening, we were provided with a snapshot of contemporary thinking among corporate leaders about the reality of a Digital business world.

A very significant 94% said that Digital was important or very important to their business, and although a decent number acknowledged that it was a strategic area for which the CEO and board had responsibility, still 39% seemed to see it as an unconnected silo to be shunted off into the sole care of the CIO. While 93% said they understood Digital well or very well, it is possible that their extended answers belied that claim: "Use of mobile and other technologies for competitive advantage" and "Technology as a medium" were encouraging; "Anything containing a computer chip" and "Done with the fingers" less so.

Amid all this, I felt that some of the comment, if not from the panel then from the younger contributors from the floor, drew pictures of Digitally lagging senior executives: 'men aged 45-55' was a demographic highlighted more than once. I think that's only true in a limited, but important, sense. Let's be clear about our terms.

I am such a man aged 45-55, and have sat on, and advised, various boards. People of my generation were entering the workplace as bright young early-adopters just as the Personal Computer was displacing the dumb terminal; we were climbing the greasy pole as Web 1.0 emerged and then spluttered at the turn of the millennium; saw our careers burgeon as Google went from search engine to global behemoth; and eyed partner or board status as heavy users of the mobile intelligence and social media tools that have changed the 21st century world in

so many ways already. This path, I would say, is typical of my academic and professional cohort. (A far cry from the day in 1994 when the then-chairman of a commercial property firm proudly and rather dismissively told me – young and tech-savvy marketing consultant as I then appeared – that he had no idea what a PC was, "besides a bobby on the beat").

So mine is not a non-Digital generation; but it's fair to say we might not be a deep-Digital one. For us, Digital tools are just that: tools – of speed, productivity and effectiveness. We spend money on them. We pride ourselves on having the latest versions. We absorb them into our lives. But, compared to fast-movers in their twenties, are we really absorbed in Digital? For them, business as usual is putting information out or collecting customer data as a game-based app; communicating live corporate information across time zones, immersively and co-operatively, using telepresence and 3D graphics; getting instant but ephemeral responses on Snapchat, Pandora, Vine or whatever is next; replacing surveys with crowdsourcing; and scarcely ever producing a long-form written report in the way we understand it today, when there are so many new media to disseminate and persuade.

So it is not what Digital is, but what Digital means for the shape of business, that is a concern.

MCA members *d'un certain age*, being a resourceful and forward-looking bunch, will doubtless look to embrace the changes as we have always done with each previous wave of technology. Part of that adjustment will involve making full sense of the implications for the corporate changes that deep-Digital era now ushers in. The panel did touch on this at the debate. The way, for example, that professional services experts such as lawyers or management consultants sell their time – indeed the very way they might spend their time – is changing; but the firms they operate in might not yet be equipped to comprehend, still less accommodate, the changes.

A £500/hour City law firm that has always charged handsomely for document review, legal research or litigation support today faces competition from limited companies (not partnership firms) who will use processing and telecommunications technology to do these much faster and cheaper, and use Digital resources like e-discovery to do low-value-added work for a fraction of the traditional cost. (Professors Steven Mayson and Richard Susskind have, in their different ways, made much of this.) The management consultancy that once made millions in complex system integration contracts (a dark and impenetrable art to so many clients that they were pleased to delegate it for decades), now finds that the very systems it was integrating, exist today as on-demand Cloud-based solutions, or smart phone apps, and scarcely need integrating at all – at least not in the same heavy-duty sense.

So the challenge is for the traditional professionals to build value specifically for that part of the operation that cannot be digitised and thereby commoditised: the part that justifies their years of expensive education and training, and their firm's heavy investment in them.

This throws up two distinct problems.

First, many lack the skills to move away from the technical towards the interactive. By which I mean, their communication skills often lag behind their subject matter expertise. At the risk of making enemies among the many lawyers, management consultants and accountants whom I respect and regard as friends, I should perhaps say that I have it on good authority from industry insiders of all three professions, that the very last and least thing they ever teach or train them to do in any depth is sell, negotiate or communicate. And yet, those are the very skills that they will need, both to make the persuasive case for the firm's differentiation as Digital makes some of their work a low-cost commodity, and to implement the higher value work which will often require client communication skills that reach far beyond the technical advice which has always been their default.

That ought to be a boon to companies like mine who help them to do these things, and in essence it is. But the very nature of Digital throws up a potential roadblock for us that management consulting firms will recognise too. And this is the second of the problems – probably a controversial one.

Many of our businesses, or at least revenue streams within our businesses, are founded on original Intellectual Property. It might be a consulting model or methodology; it might be a product or solution developed in the course of meeting a particular client need that you have subsequently made generic and taken to market; or it might – as in our case – be the research and tools that underpin the training and reinforcement we deliver.

For many years, while protecting it wasn't exactly easy (20 years ago we used to retrieve lookalike materials from waste bins at training centres and take the plagiarists to court), Digital has complicated the task immeasurably. It

has done so physically: copies of materials circulate on the internet and grainy impersonators of our trainers surface on YouTube. Worse, though, it has done so morally and politically.

The very generation that will do most to drive Digital forward to the benefit of economic future, is the same generation that now has at best a questioning, and at worst a dismissive, approach to IP. It is the generation that has developed programs for open source environments; has seen work by Creative Commons self-consciously marked 'No Rights Reserved'; has retweeted the retweeted retweets of the PDF of an academic paper that was once reserved for subscribers, or shared a photo of an FT article that sat behind a paywall. And so some people are now genuinely affronted by the notion that a thing of value should have ….well…a value.

I do not condemn; but we cannot deny that it presents a problem to business models in many industries (of which software, music and book publishing are only the most obvious). It stands to affect all of us who make investments to produce things, and who therefore require to see a return (protected in some way) on those investments if we are to bother doing them again. That's the key thing that Digital is changing and challenging, and which current leaders may not possess the skills, knowledge or imagination to resolve.

John Seely Brown and Paul Duguid foresaw this problem in an excellent book *The Social Life of Information*, published in the year 2000, when the internet was only beginning to turn things upside down. Having examined the question, they concluded that "It's easy for people to dismiss as residual, institutions that have a good deal of dominating life in them. Some lawyers, for example, have promoted the idea of a 'law of cyberspace'. But there's little reason to believe that the old-fashioned law of material people and places has exhausted its writ yet." They might still make that argument today – but for how much longer?

Today's professional leaders, then, are not short of enthusiasm for the sparkly toys of the Digital age. The MCA survey shows it and our career histories underline it. But that very adoption and encouragement of all that is new and programmable has created more than one sticky conundrum which it will fall to the next generation to solve.

Managing pace - Handling complex, urgent programmes in the Digital Age

—Richard Brackstone, Client Director at Moorhouse, looks at how Digital is changing how consulting is done

As the MCA's Year of Digital work illustrates, Digital is reshaping client demands for consulting expertise. It is also changing how consulting is done. This applies to wide scale transformation, as well as staples of change, such as programme and project delivery.

In markets such as Technology, Media and Teleommunications, we are seeing an aggressive push to get new services and products to market. This is especially true in telecoms and is driven from three key forces:

1. New Technology. When new products are developed there is pressure to get the product to market as quickly as possible ahead of potential rivals and become dominant. Recently this has been seen in connected wearables such as fitness bands, with Google Fit and Apple Fitness looking to lock customers in to their health platforms
2. Competitor Catch Up. Companies seek to close the gap quickly on a competitor that has launched a new product or service. This is being seen with mobile media platforms, for example Over The Top (OTT) catch up TV content such as Amazon Prime and Netflix
3. Customer Pull. Customer behaviour demands new products and services, such as bundled offerings bringing together broadband, TV, fixed and mobile

This pressure means that traditional approaches to implementing programmes are viewed as clumsy, potentially bureaucratic and putting a spanner in the works of entrepreneurial spirit and invention. Alternative approaches with rapid mobilisation, often termed agile, can be so disjointed that the word becomes a synonym for chaos. Products and services are rushed to market and delivery windows, particularly in the latter stages, are compressed. The testing horizon narrows, replacing full regression testing with 'SMART', light-touch, risk-based approaches, or even a minimum product offering launched with reduced testing, which is then refined and assessed in the live environment.

Clearly there is real danger in this approach. It can damage the customer experience, erode the brand and ultimately lose business.

Squeezing delivery windows from concept to market increases complexity and risk, but the problem is not going to go away. In the Digital Age, product and service delivery is perceived as something that needs to be swift, with a 'try everything' culture, made possible by the perception that Digital is reducing the costs of innovation and allows ideas to be tried out often in real-time scenarios where identifying failure is as important as rapid success so long as organisations learn quickly.

While this is true in many cases, there can still be problems, especially where delivery is beset by organisational politics. Marketing, Sales or Digital functions may offload the problems associated with the building and launch of a new innovation to an organisation's planning and delivery areas – often involving technical IT. As a result, this part of the organisation suffers the immediate impact of criticism when the customer experience during the launch is poor. This is only compounded with the increased use of social media to convey real-time consumer emotions and ultimately leads to an endless flow of reactive change requests adjusting products and services during the launch phase.

Relying on 'Customer Forgiveness' in these circumstances is a high stakes game, heavily dependent on existing levels of goodwill, reputation in the market, the leading edge nature of the product or service itself and quite often the age profile of the target customer group. Apple can get away with it. They launch leading edge products and customers jostle to be first in line to get them. The customer accepts, to a degree, the inevitability of launch issues and service updates as the products are tuned in the live environment. The customer becomes a technical innovator and part of a design and re-design cycle which completely resets the parameters of the 'perfect' launch. We are certainly seeing more and more of this as consumers compete to be part of beta launch versions of new operating systems and programmes from organisations like Apple. Many other organisations try to adopt this approach but few enjoy Apple's identity and loyal customer following.

What does this mean for consulting?

Currently, there is an increased demand for contractors as a way of augmenting resource to fill gaps in both capacity and capability. This is often a tactical response to a strategic challenge and means that clients do not have access to the broader corporate knowledge and experience that established consultancies provide and that ultimately drives sustainable value.

The changing nature of delivery demands a more thoughtful and a connected approach, combining agility with more traditional sequenced planning at key points. Here, consulting can really add value.

Whilst the real-time information Digital makes available can help manage the reduced delivery time frames, consultants can also help clients understand the risks they face. Organisations must be clear about what they want to be in their respective market and need to be ambitious on how they achieve, maintain and improve their desired position and identity. Establishing a portfolio approach to how they do this is really important. Capacity and capability are resource limitations that necessitate prioritisation and strategic clarity. Delivery in ever decreasing timescales is complex and requires a wider strategic approach, insight, flexibility and intelligent risk management, especially as dependencies and quality/timing tolerances get squeezed.

The Moorhouse 'Barometer on Change' for 2014, based on a survey of 200 board members with an annual transformation spend of £4.2bn, identified the need for strategic clarity and an aligned change portfolio. It also stressed the importance of embracing change as leaders felt the pace and pressure of rapid service and product delivery increasing in their organisations.

Pulling it all together, managing the tensions and priorities, whilst delivering successful change, is now defined as *The Intelligent PMO* that supports delivery. Every organisation engaged in rapid Digital innovation should consider harnessing intelligent PMO disciplines, since these successfully support entrepreneurial spirit in the market. A series of fast and suboptimal launches could end up being one long, slow expensive brand failure. So this is an area where it pays to invest. An intelligent PMO – lean and responsive for the Digital Age – de-risks the environment and can help firms deliver market leading propositions and services strategically and effectively – whilst still leading the pack.

Digital makes everything easier

—Joe Wilde, Consultant at Accenture, looks at how Digital can do more than drive profits and consumption

How people define Digital varies. It's a term that can mean a lot of things. I think a good way to understand it is as something that helps to reduce 'friction' to paraphrase it removes barriers and makes things easier.

Established organisations like Digital because it's made their life easier. It's easy to monitor what customers buy, it's easy to predict what to sell them and it's easy to move into new markets at unprecedented rates. Likewise Start-ups are succeeding at an incredible pace. Never before has a small team of programmers been able to generate an apparent $19bn of "value" in a mere four years. Digital has reduced friction in both cases.

As a result, with Digital it's easier to make money. But let's be honest as consumers we get some pretty great things in return: Netflix, Amazon, & Spotify have made our lives easier. They have made it easier to consume.

Can Digital do more than drive profits and consumption? I think so.

I think Digital has the power to democratise the world. It represents freedom, in my case freedom from the oppression of TV schedules dictating what media I can consume during the limited time period I have available. More poignantly, Digital has enabled a nation to do business free from the corruption that had plagued fiscal transaction for so long through the creation of M-Pesa. Twitter and Facebook enabled the repressed to have a voice the rest of the world could hear. These examples represent a very real kind of freedom, all enabled by Digital.

At Accenture Digital, it's my job to help people utilise Digital and I want to help ensure it's a win-win scenario. Of course I need to ensure my clients get something out of it. But if their customers don't then something is going wrong. I want to keep working to make sure Digital is helping to improve our world because it's easy to go the other way.

Old theories, new possibilities

— Paul Connolly, MCA Think Tank Director, suggests that Digital allows firms to honour old promises

Joe Wilde's excellent recent piece on Digital emphasises its potential to change the world. But Digital is also important because it can help firms honour old promises.

For many years it has been widely acknowledged that for businesses to optimise their performance, they need flexible structures. Firms should be "flat", non-hierarchical, with devolved centres (of location, function, expertise) which can combine tactically to address emerging problems.

Easy to articulate. Hard to do.

One inhibition is the issue of control. It is good theory to promote autonomy in staff and functions as a route to business efficiency, innovation and accountability. But in practice many corporate centres, with their focus on cost and the bottom line, find it difficult to 'let go'.

But recent studies show that business devolution is becoming more widespread. [1] Digital is promoting this trend. In the past, the corporate centre worried that in giving greater freedom to business functions it would lose control and only see problems in retrospective and imperfect performance data. But Digital is real-time. It can provide information on what is happening in a business now, on everything from staff performance to supplier invoices, customer payments and other cash-flows. And Digital improvements mean databases are more intelligent, able to interrogate inputs and make allowances for human sloppiness.

These Digital capabilities allow decision-makers to shift resources around and respond to emerging realities swiftly, backing the successes and closing down the failures of their devolved environment.

Another longstanding concept in business theory is the networked firm. Businesses, the theory suggests, should participate in reasonably open, value-creating alliances, which may even include competitors. Again, Digital provides the basis for communities of business allies to engage in automated and secure data exchanges.

The prime business determinant should, of course, be the oldest piece of theory of all. Putting the customer first. And whether businesses genuinely did so in the past, now they have no choice. Many firms use Digital, especially Big Data analytics, to try to anticipate customers' needs. But even for those who don't, data is already a two-way street. Consumers have more information than ever before on businesses, increasing price and service demands. They can discuss products on social media, enhancing or degrading brand value. Firms that do not devolve power to local and functional operations that are able to adapt more swiftly to customer demands than remote centres can, or who do not work with other parts of the value chain to respond comprehensively to customers' increasingly complex needs, will struggle.

All this places new pressures on business leaders. And old ones too. They need to respond to Digital seriously and understand its potential. But by using Digital capabilities to realise longstanding business paradigms they can start to focus on what they should be doing. After all, devolution works best in a framework of principles, where it is defined by the expectations of a competent centre. Networks require skilled diplomacy to succeed. Business leaders should be exploiting Digital to manage their businesses well: to support, facilitate and sponsor internally, and to build alliances externally.

In other words, the role of leaders in the Digital Age is an ancient one. To lead.

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[1] See The Third Industrial Revolution, Jeremy Rifkin, Palgrave Macmillan, 2011, p. 115; Internet and Society, Christian Fuchs, Routledge, 2008; andMobile Service Industries, Technologies, and Applications in the Global Economy, Susana de Juana-Espinosa, Jose Antonio Fernandez-Sanchez, Encarnacion Manresa-Marhuenda and Jorge Valdes-Conca (eds), IGI Global, 2012, pp. 294-9

Digital is what the 90's promised

—Joe Wilde, Consultant at Accenture, looks at the origins of Digital

In a previous blog, Paul Connolly wrote about how Digital has finally enabled a host of business ideals. He's right but it has taken an awfully long time.

Towards the end of the 90s when we were experiencing the beginning of what we are now calling Digital disruption The Cluetrain Manifesto was published. Written by four professionals working in the IT industry, it predicted that the world was about to change "the end of business as usual" as the authors put it. Yet it took until the book's 10th anniversary for most of their predictions to come true. Why?

The 90s was the birth of the commercial Internet, as we know it. Everyone wanted a piece of it, whatever it was. Nonetheless the initial hyperbole wasn't to be fully realised for some time, since:

- No one knew what to do with it and it was hard to use
- Access was limited and expensive
- It was really really slow

Fast-forward 25 years from the birth of the modern Internet and this 'new' thing called Digital is finally starting to come good on those early promises. Gartner calls it a Nexus of forces.

Mobile technology, cloud computing, social media and analytical information have all become so much cheaper and so much more accessible that they are practically ubiquitous. Internet speeds have improved drastically and technology is finally getting into the hands of the masses, not just the techies. With this speed and accessibility comes exciting and disruptive change to almost every part of our lives, from enterprise to politics and our relationships. So:

- Basic apps can now be worth more than entire phone companies.
- The last US election was won, in part at least, because Barack Obama had a better social media campaign.
- My 3-year niece is talking to her grandmother through Skype on a tablet whilst she's in a different country and she's playing on her phone to keep herself amused at the same time

Digital is changing what's possible and the pace of change is only going to increase. It's not enough to make a pretty website and a mobile app. Organisations need to understand that Digital requires fundamental changes in how they run their business and engage with customers.

With the 90s promises finally being realised we are in an exciting period of disruption that is impacting almost every industry and disruption always presents opportunity for those who are paying attention.

Skills key to UK exploiting Digital opportunity

—Rachel Barton, MD in Accenture's Strategy practice, sees digitisation as a once in a generation growth opportunity

The rapid digitisation of the economy represents an enormous, possibly once in a generation growth opportunity for British businesses, providing they can quickly put in place the right business strategies and hire the right skill sets to make it happen.

Digital has been defined in many ways, but fundamentally it is an interaction between machine and machine or machine and human to share information to drive an outcome. This encompasses far more than just a website or an app. It is a profound change in the way organisations and humans, operate.

Digital has been likened to the Industrial Revolution in terms of its impact on society and business. It is continuously opening up opportunities to create new products and business models and many countries and entrepreneurs see the Digital revolution as a way to leapfrog from "developing to developed" or "start-up to sustained."

However, many organisations are struggling with this challenge. This is partly because they don't have the right skills in place or are unsure how to extract value from them. Some are simply not far enough along their own Digital journey to attract the right talent where it exists.

As part of its research to launch its Year of Digital, the Management Consultancies Association (MCA) recently surveyed Britain's boardrooms and uncovered concerns about a Digital skills gap in the UK. For instance, many businesses believe graduates simply don't have the required Digital skills. While 94% of senior executives view Digital as important or very important to their businesses, 20% feel that graduates' grasp of Digital is average to poor.

As other countries use Digital to expedite their journey to economic success, the UK needs to take certain steps to ensure it can compete globally when it comes to realising the benefits of the Digital economy.

Even though the latest generation entering the workforce is the most at ease with Digital, there are nonetheless some doubts as to whether they can apply that in a business setting.

To help address this, a sense of excitement needs to be infused around the digitisation of business.

Also, the value of Digital skills should be clearly communicated to the employment market. This means offering attractive financial rewards to employees with these skills, and looking beyond the traditional means of assessment when it comes to recruitment.

Some of the more 'aware' businesses now rank Digital skills and social media influence as being as important as academic achievement. There are now employers asking graduates for a Klout score of 60 in addition to standard qualifications.

Employment opportunities should be created that give these skilled workers a platform for innovation. They also need career paths where tenure is not considered a key measure of success. Indeed, Digital natives are expected to have on average 20 jobs and five careers in their lifetime.

These changes require a fundamental shift in mind-set among business leaders. But that shift is necessary if the UK is to retain its Digital talent, given the international competition for these skills.

The role of government and education

The Government can play a key role in helping UK firms. And it has a vested interest in doing so. Exploiting Digital will bring the country significant wealth - creating benefits at a time when there is much debate over steering the economy in the direction of balanced growth.

There are a number of ways the Government can help. Tax incentives for Digital entrepreneurs and apprenticeship schemes are important. It can also communicate the benefits of Digital to businesses through campaigns and ensure that Digital skills are taught as part of the school curriculum as early as possible.

However, Digital should not be viewed as a standalone subject. Just as is being seen with business, Digital is a fundamental change in thinking and what is needed is a digitisation of curricula that embeds this topic throughout the education system.

This move will inevitably lead to new subjects gaining prominence such as robotics, genetic engineering and social collaboration. However, core skills in mathematics, engineering and science remain important bedrocks to building a highly competent workforce. They just need to be adapted to be relevant in a Digital world.

Courses like economics, accounting and business studies will also need updating; entrepreneurialism, test and learn concepts and different financial approaches will need to come to the fore as traditional business cycles, open innovation, methods of raising capital and managing a P&L are disrupted by Digital.

The Government is already playing its role by bringing digitisation to the delivery of public services. As government departments and agencies touch everyone's lives at some point they are a good way of helping digitisation permeate widely across society. It demonstrates that Digital is simply the new normal. It also demands that Digital inclusion stay at the top of the agenda too. Nobody must be left behind.

Government is only part of the solution though. For companies – those that want to survive and thrive - the time to act is now.

Using the Digital pioneers to expedite skills development

On a practical level there are a number of measures companies can quickly take to make use of the Digital skills residing in their organisations.

Generation Y, defined as those born 1980-2000, are the most Digitally aware generation in our workforce and their presence alone is changing the way businesses operate. Although many of them may have relatively junior roles, their familiarity with all things Digital can play a key part in an organisation's transformation.

To capitalise on their skills, Accenture recently launched a 'buddy scheme'. This involves partnering Digitally aware, often younger team members, with senior ones who may not be so Digitally savvy.

For example, an analyst starting out in their career is partnered with a Managing Director to act as a kind of 'Digital adviser'. The analyst has a role in helping develop the senior leader's Digital and social presence at the same time as increasing their competency. By simply tapping into how a different demographic thinks, the buddy scheme has helped to place Digital at the heart of a number of strategic decisions. This has helped close the Digital skills gap at Accenture.

But there's more to be done.

Many organisations probably have more people than they realise on their payrolls who possess Digital skills, but are working in traditional roles. They are an untapped resource.

It might be a sales representative, whose core skills revolve around analytics, computer sciences or coding, for example. These are competencies, which lend themselves well to a Digital environment.

These individuals can be re-orientated towards building an organisation's Digital future. It's also a great way to induce a 'halo' effect around Digital within the company.

For example, for a traditional insurance company looking to launch a new Digital service to compete with Internet-only rivals it is very tempting to hire new teams. However, it is well worth that company first looking at its own workforce for potential Digital pioneers.

Using them comes with the benefit that they already understand the organisation and its culture. They can potentially get up to speed more quickly than a team of new hires.

These people can be identified by HR departments through surveys and by studying employee records showing their past experience and qualifications.

However, these are only partial solutions. Longer-term there needs to be an increase in the number of graduates who not only understand traditional disciplines, but also have the ability to apply them in a Digital environment.

It is an educational challenge, which starts with schools, feeds through to universities and carries on in the work place.

Digitising the UK economy requires a strong commitment from government, businesses through to individuals to make sure it happens.

How are Britain's boardrooms viewing Digital?

—Exclusive research for the MCA carried out by Research Now reveals the answers.

Our Digital Future: the view from Britain's boardrooms reports that, while over 9 out of every 10 business executives agree that the importance of Digital for their business is high, less than half are confident their their company understands it 'very well'. And their understanding varies enormously, with many different ideas of what Digital is and who is responsible for it in their firm.

Alan Leaman, Chief Executive of the MCA, said: "Management consultants are making the link between Digital technology and its impact on their clients. The potential is huge, and we can see already the positive difference that astute work by consulting firms can make."

Our economy has changed. Recovery has returned. But the tough downturn accelerated innovation. Today's growth is different and more challenging than the growth of previous decades.

Central to this challenge is the rise of Digital. That people can work, shop, play games, read books and newspapers, watch tailored packages of TV, or access their entire music collection all on the latest fast and miniscule Android is creating expectations about how they want to interact with businesses and access services.

The common coding for TV, internet and telecoms is removing boundaries between previously separate industries. Data abounds, furnishing opportunities for business to understand their consumers better, giving power to consumers through unprecedented levels of information on products and services, and creating privacy and security headaches for everyone. Social media has changed the dynamics of brand control, with businesses able to sell products – and consumers able to get grievances aired – through tweets and Blogs. Digital is a new culture affecting everyone.

Digital is transforming management consulting. Consultants are at the heart of Digital because they understand both technology and business. They 'get' the radicalism of Digital, the scale of its challenge, and its technical dimension. But they can translate those issues challenges into language businesses understand, explaining to boards and chief executives how they must deploy their resources to master and profit from the Digital opportunity. Consequently, Digital consulting is now the largest and fastest growing consultancy service. Unsurprisingly, at the recent MCA Annual Debate on Our Digital Future, launching the MCA's Year of Digital, two thirds of the audience agreed that Digital is as significant as the industrial revolution.

To understand better how Britain's boardrooms see Digital, the MCA recently interviewed more than 100 senior business leaders with independent specialist research company Research Now. This is what we found out.

Over 9 out of 10 business executives agree that the importance of Digital for their business is high

While this finding may reflect high levels of awareness of social media, online shopping and changing consumer habits in general, this is nevertheless a positive result. Britain's boardrooms are aware of the arrival of Digital and

they believe that it will have an important impact on their business. British business will not willingly stand aside while this transformation takes place

But leaders are less certain that their company understands the future of Digital

Over half of the survey respondents feel that their company understands Digital only 'quite well' or worse. Less than half are confident that their company understands it 'very well'.

Senior executives are prepared to be self-critical about their companies. While this is a good sign, many of them clearly believe that their business needs to do better. This finding accords with the experience of MCA member firms who often advise company boards on how to embrace Digital.

"Over half of leaders feel that their company understands Digital only 'quite well' or worse".

"Less than half are confident that their company understands it 'very well'.

Senior executives say that they personally understand Digital and its impact on the economy

Britain's board members claim a high level of understanding of Digital and its impact on the future of our economy. 93% of our survey said that they understood this either 'very well' or 'quite well'. And our entire sample said that they were involved to some degree in decision-making for their own company on Digital services.

93% of Board Members claim a high level of understanding of Digital and its impact of the future of our economy."

This is another encouraging finding and could be a great platform for future economic success. Britain's board members seem confident about this topic and believe that they are engaged in it.

But understanding in Britain's boardrooms varies enormously in practice, and business leaders have many different ideas of what Digital is. They also have quite narrow view of who is responsible for Digital in their firm

When our survey asked senior executives to explain their understanding of Digital they came up with many different answers. This might not be surprising; the Digital agenda is diverse and complex, stretching over almost all the terrain of a modern business.

But it was remarkable that the survey generated so many different answers to this question.

Linked to this partial understanding was how respondents replied to questions concerning responsibility for Digital in their firm. The responses varied. While some respondents placed responsibility with the CEO (19%), there was also a tendency to point to the CIO (39%). Respondents whose answers gave a sense of collective, institutional responsibility were rare.

What is Digital?

The confidence of business leaders that they understand Digital is not supported by the mixed quality and wide variety of their answers to this question. A lot of answers were correct, but incomplete. Few executives have understood the comprehensive and cultural nature of Digital. And many other answers were either literal and basic, or simply circular. MCA members suggest that it is so important for businesses to understand the impact of Digital's 'disruptors' (social media, the Cloud, Big Data, gamification etc) that the subject should not be viewed as a matter for one institutional silo or one responsible officer alone. Digital is pervasive. It affects every aspect of business. On this evidence, Britain's boardrooms have a long way to go before they can claim they 'get' Digital.

"Anything containing a computer chip"

"Technology as a medium"

"93% of Board Member claim a high level of understanding of digital and its impact of the future of our economy."

"Use of mobile and other technologies for competitive advantage"

"Binary code"

"As I write this I'm doing so on a smartphone and wouldn't have been able to 5 years ago"

"Automation"

"The internet"

"Binary code"

"Done with the fingers".

"Everything that is modern and Digital".

UK firms need to do more to secure the right skills for their Digital future

Only around a third of senior executives reported that their company has the right mix of skills to tackle the Digital future. Around a half agreed only slightly with this statement, suggesting that this remains a key area of concern for businesses. And, while there is strong recognition that many of today's school leavers and graduates a well-equipped for work in the Digital age, one out of every five executives in the survey rated them as average or below.

"One in five executives rated school leavers and graduates as average or below".

"Only around a third of senior executives reported that their company has the right mix of skills within it to tackle Digital"

It is not surprising that UK companies find it tough to recruit the right numbers and quality of employees for the Digital Age. Much of this work is new and many companies are feeling their way. There is also a tendency to treat Digital as a technical discipline, when, as MCA Digital experts have argued, designers, psychologists, behavioural economists and creatives can be just as valuable as the writers of computer code.

How the retail industry will be disrupted by technology...again

—Jasnam Sidhu, Consulting Associate at PwC, gives a young consultant's insight into the future of retail in the Digital Age

Lately we've been hearing a lot about tech. Tech's disrupted 'this' industry and will disrupt 'that' industry.

Working in PwC's Emerging Technologies practice has allowed me to experience being at the forefront of this. The team focuses on technologies that are 2-5 years away from being adopted by the enterprise, but can be tested and piloted today. These technologies include 3D printing, Augmented reality, Automation and the Internet of Things. This has given me an insight into part of what the future holds and it's exciting!

Looking at the retail sector, technologies have changed more than just how retailers allow customers to buy their products. They have allowed new methods of engagement, new platforms for customer service, and new channels to market and advertise through.

So what's new in tech and retail?

One of the latest potential 'game changers' is the introduction of 'beacons'. This emerging technology allows apps to recognise when a device (such as your mobile) is near a small wireless sensor called a beacon. The beacon can then send targeted promotions or messages to your device and vice versa using Bluetooth Low Energy (BLE).

Regent Street is one of the first shopping districts in Europe to embrace the technology as part of a £1bn modernisation programme. Whilst sharing more information about yourself is not on everyone's to-do list, 'beacons' make it possible for consumers to receive specific offers and promotions on brands and products that they're interested in.

So, what else do emerging technologies have in store for retail? Recently, Westfield Shopping Centre in London hosted a '24-hour Fashion Hackathon' where tech geeks and fashion experts spent a day creating an app that might just change the way we shop forever. The contest was won by a team that created an app called SkipQ, which allows customers to pay for items without queuing.

Other 'disruptors' include wearable technologies such as Apple's Watch and Fitbit's Flex. The Internet of Things allows a range of devices to communicate with one another via the internet. Together these emerging technologies make it easier for consumers to receive targeted promotions and can reduce the time they spend looking for products online.

What does this mean for consultants?

As emerging technologies continue to disrupt established business models, retailers must adopt and embrace these technologies. Consider what happened to Blockbuster as a consequence of not embracing technology. By not reacting quickly to changes in technology, its business model wasn't able to compete with the likes of Netflix.

Those of us with a Digital or retail focus have a responsibility to keep our clients up to date with the latest technologies and trends. We have to try and help clients remain ahead of the curve by working with them to become agile enough to keep up with the rapidly changing trends technologies help to create.

Who knows what's next. The future is exciting!

How to buy Digital advice and support effectively

—Digital raises a lot of questions for a consultancy buyer.

The MCA Consultancy Buyers Forum event The Digital Disruption hosted by Deloitte in October 2014 was extremely revealing about the challenges of buying Digital effectively.

Digital is huge for consultants and buyers alike. Panel chair, Paul Connolly, MCA Think Tank Director, advised that 25% of all consulting activity is now Digital and that 94% of business leaders in a recent MCA survey rated Digital as a top priority for their business.

Guest panellists Rob Price and Royston Seaward, Heads of Digital at Atos and Deloitte respectively, indicated that often clients would engage them to help advise on how they could 'go Digital' without really understanding what that means. Consultants, they argued, are ideally placed to offer dispassionate advice on how Digital can be properly deployed by organisations to support their key business goals.

Audience members were curious to know how to identify and evaluate the best sources of Digital insight and also how to measure the success of an engagement. Measurement was felt to be particularly challenging, given that a hallmark of Digital is its unpredictability – and any honest Digital guru will accordingly admit to limited certainty about the future. The panellists suggested that projects should have measurable near-term goals and that the best Digital consultants will already have a well-established track record in this area. They also suggested that 'showing' rather than 'telling' clients what good looks like is now an increasingly visual process in the Digital Age, with the use of high quality graphics, informatics and even games becoming the norm.

Breakout sessions explored whether Digital consulting required a different type of buying process, referencing the current good practice principles that are laid out in the CBF Blueprint. The workshops evidenced concerns among participants about the ownership and accountability for Digital across businesses and the degree to which Digital is strategically linked to clear business goals. Coherent relationships between strategic insights about Digital and the buying process for Digital 'kit' were felt to be essential. Some participants also observed that scoping and evaluating Digital advisory services was trickier than assessing traditional consulting, especially as the buying process itself might need accelerating. Others however felt that the existing Blueprint guidance remained sufficient, especially if buyers take the trouble to make a preliminary assessment of their overall Digital advisory needs in the context of wider business objectives.

Paul Connolly observed that consultants are a materially important part of the Digital value chain. MCA member firms employ many Digital radicals, who understand just how far-reaching its potential is and the scale of the changes being wrought by Digital 'disruptors' like the Cloud, social media and Big Data. Getting expert advisors in early could help those for whom Digital is a "known unknown": something they know exists, but don't understand, and in relation to which they thus risk making poor buying decisions, especially for Digital equipment.

Paul Vincent, Chair of the Buyers Forum, said the outputs from the workshops would be used to explore ways to improve the Digital buying process. He felt that not only is it necessary to better understand what represents good consultancy value, but also to better appreciate how Digital may be disrupting the established buying practices in other areas of IT spend. As the boundaries around Digital buying decisions become increasingly blurred there will inevitably be a greater number of interdependencies for clients, consulting firms and procurement professionals to try and manage.

The Age of Digital Consulting

—Alan Leaman, MCA CEO, on why the ability to navigate uncertainty together will be crucial for both client and consulting firm, especially for Digital outsourcing advice.

Digital used to be just an adjective. There were Digital TVs, Digital radios, Digital experts and more.

But now Digital is clearly also a noun. We are living in the age of Digital.

For Digital is proving to be huge. Almost everywhere we look in our working and personal lives, it is changing the way we conduct ourselves, carry out our business and engage with each other. New businesses are being created, almost overnight. Others are fading and being undermined, just as fast. Retailing, manufacturing, financial services, government – all are feeling the impact.

And we sense that we are only at the beginning of this new wave of change. Most experts believe we are at the start of a prolonged period of unpredictability and transformation, as significant in its impact as the Industrial Revolution itself.

What could be the effects? Here are a few examples:

- Empowerment of the consumer and, perhaps, the citizen.
- Massive savings in processes and the cost of communications.
- A scramble for new products and routes to market.
- The explosion of data and information that can make or break commercial ventures.
- Increased cyber-crime, together with costly measures to defeat it.
- Even, outsourcing advice and implementation will change.

And, again, we've hardly scratched the surface.

Management consultants are right at the heart of many of the agendas that flow from Digital. Indeed, the MCA's industry data earlier this year showed that more than a quarter of all management consulting activity is now Digital-related. It is the largest and fastest-growing part of our industry. When it comes to outsourcing, consulting firms are using Digital as an opportunity to complement pure cost savings with advice on how clients can innovate and push transformational change. This can include using the cloud, social media, mobile and big data to drive change across the organisation – in operations and business models.

The high level of Digital consulting activity is one reason why the MCA has launched our Year of Digital.

And it is also why we recently got together with the buyers of management consulting, represented in our Consultancy Buyers Forum, to discuss the challenges of buying Digital effectively.

Many participants observed that scoping and evaluating Digital advisory services can be trickier than dealing with more traditional consulting services. The buying process itself may need accelerating. And the collapsing of old boundaries between industry sectors that is being driven by Digital puts a premium on understanding the impact on skills requirements and organisational design, including in the buying process.

Digital may itself be disrupting the established buying practices in other areas of IT spend. It will be important for those who are buying the important expert advisory support to be early at the table, often drawing on the interdependencies for clients and their consulting firms.

Many organisations know that they need to 'go Digital'. But many more understand that this is a 'known unknown' for them. Some of the leading Digital management consultants at our event spoke of the vital role they play in helping clients to understand what is at stake and how it relates to the priorities of their business. Only then can sensible buying decisions start to be taken.

Digital is transforming business. We expect to see a lot more outsourcing as a result. This is the age of new possibilities.

And, since much of this is a journey into an unpredictable future, the ability to navigate uncertainty together will be crucial for both client and consulting firm.

The Three Waves of the Digital Age

—Carlo Gagliardi, PwC, explains how in the future consumers may gain advantage by turning Big Data on its head

The rapid advancement of the Digital Age – the confluence of social media, smart devices, Big Data and Cloud computing – represents a massive opportunity for businesses. Data is at the heart of this opportunity. But as Digital matures, we will also see new opportunities emerging for consumers to gain advantage from their data.

To describe these opportunities, we should first consider the "three waves" of the Digital Age:

First Digital Wave: Commerce

The first wave is Digital Commerce. Typically, a previously offline business opens up Digital channels, such as online shopping malls, alongside existing routes to market. This can be extremely valuable for cost efficiency and top-line growth. Digital Commerce has been with us for many years now. But smart devices and an emerging generation of Digital Natives are changing the dynamics and creating new opportunities. Owing to its simplicity, usability, and, for them, normality, Digital is their chosen channel. Digital Natives shop in-store and on Digital devices simultaneously. They almost want to walk into a website when they shop on the high street! So even if a company has been online for years, many opportunities still exist to create additional performance and advantage.

The first Digital wave is thus about the Economy of Products and Services.

Second Digital Wave: Outcomes

The second wave is all about helping people achieve goals they care about. Simple goals can be delivered by well-engineered products. The goal of opening a bottle of wine can be perfectly delivered by the corkscrew. But as goals become more complex, creating products and services that deliver them becomes challenging. Personal fitness, healthy eating, a cleaner home, safer driving, greener/cheaper household heating: these outcomes can't be purchased off the shelf in a traditional product form.

So, to achieve these outcomes the customer will need three things:

- Better understanding of their own behaviour
- Assistance with matters of discipline and willpower

- A supplier that understands their needs and wishes very well

Digital technology can help brands and customers achieve these things today. Sensor technology, like the Fitbit wristband, can monitor what we do and help us understand our behaviour. Social media and peer-to-peer comparison can keep us focused on our interests, as in Smart metering and Digital reports on average household gas and electricity consumption. In-car telematics can help people drive in a safer or greener way, and increasingly look at their cars as 'service platforms'. Firms that utilise these technologies to understand customers and anticipate their needs will thrive. In the last example, an insurance firm can use information on car usage to calculate better premiums for consistently safe and responsible drivers (and many insurers do this today).

The possibilities are endless. And they have an additional advantage. The provision of real-time information for consumers provides them with a 'life videogame'. The game is engaging, interactive and good fun. But its goals are real.

This second Digital wave is all about the Economy of Outcomes.

Third Digital Wave: Consumer Power

This wave concerns Digital Identity and will turn some assumptions about Digital upside-down. Consumers' data footprints, collected by smartphones, fitness wrist bands, smart gas and electricity meters, and car insurance monitors, are currently 'owned' and analysed by those who gather the information as service or product suppliers or by organisations that purchase the information from them. This is the traditional view of Big Data and it is a core element of the Economy of Outcomes. Tailoring and integrating complex offerings for customers depends on deep understanding of their desires and needs. Big Data can provide this.

But in the future, consumers may choose to take control of their data. They may pass data to trusted business partners, intermediaries who can analyse the information and use it to broker offers from other players in the ecosystem and to enable even more goals, and more valued ones. For example, as a consumer, I could release my energy usage data and receive tailored offers from suppliers. I could release data about my habits of music consumption and appreciation. Then it is up to music streaming suppliers to tailor a competitive offer to me based on my consumption patterns.

Of course there are significant privacy and regulatory matters to be addressed. But what this wave of Digital will depend on is an inversion of our assumptions about Big Data.

Currently, Big Data is scary. You surrender your data. Collectors of this information do things with it you are mostly unaware of, for purposes you have not approved, and which will give you neither editing nor deleting rights. This is Big Data where the Company Is in Charge. Even where companies use the information with good intentions and to try to understand customer needs they run the show. But there is also another way.

In this new version of the story, the customer does not surrender data, but volunteers it. They use their data as a bargaining chip, bartering with it as the legal and respected owner, with full editing and deleting rights.

This dynamic would help customers achieve valuable goals. They would be in control, using their data like a currency. That's the key: in the Digital age personal data is not a product to be sold for a bit of money, but a currency in its own right that can be spent on things that money alone can't buy.

Here is another way to look at this: in the Digital Age people will want two Big Rights: on the one hand the 'Right to be Forgotten'; on the opposite side of the spectrum, the 'Right to be Aggregated'. Interestingly, both will require very high levels of trust. Especially the latter. Now, that's Customer Centricity on a new, unprecedented level! It is Big Data where the Customer Is in Charge.

In this third Digital wave, the Economy of Outcomes is underpinned by critical new ingredients: consumer control and an even higher level of trust.

This dynamic will be critical to the evolution of Digital as a means of fulfilling consumers desires on their own terms – what we might call the Economy of Wishes.

Consulting Case Study: Arup with Croydon Council

—An insight into the MCA Award's Innovation Project of the Year 2015.

The regeneration programme that London Borough of Croydon is embarking on promises nothing less than a completely new town centre. In just five years, more than 160 construction projects of all kinds, from office buildings to retail schemes and schools, will transform Croydon as a place to live, learn, work and visit.

More than 20 major schemes and numerous smaller projects will deliver around 3000 new homes, up to 2.8 million sqft of new office space, 2 million sqft of new retail and leisure facilities, 28 new public spaces and places, seven new hotels, four new schools and new further and higher education.

It's an Olympic-scale programme of development, with one major difference: it's not on a blank canvas of land. And Croydon can't close while it's all going on. Critical to its delivery is that investors, developers and other shareholders retain complete confidence in London Borough of Croydon (LBC) to coordinate and facilitate the programme, share risk and bring about the necessary improvements in local infrastructure.

LBC set Arup the challenge of planning how to deliver the programme while keeping Croydon moving. Instead of a report or timeline, Arup gave Croydon a tool: a tailor-made, web-based dashboard that defines the programme, allows the cumulative effects of projects to be easily understood and balanced, and their progressive delivery to be tracked and managed, all in real time. The dashboard provides an intelligent 'single point of truth' by capturing all 169 regeneration projects in an interactive map, allowing users to navigate central Croydon and add a range of background layers, such as masterplan areas or political boundaries.

It has already proved itself as a highly innovative programme management tool and strategic roadmap. Specifically, it meets LBC's objectives by:

- Defining the entire Croydon regeneration programme, providing a single map-based source of reliable, continuously-updated information, accessible to all, on all 169 individual projects
- Balancing the programme, providing an interactive, visually intuitive way to analyse and understand the cumulative impacts of projects and construction traffic, essential to planning and keeping Croydon moving
- Delivering the programme, by providing the central, on-going planning and programme management tool for the Central Croydon Area-Based team.

This easy, intuitive window on the future, developed by Arup and accessible to all, is helping to secure Croydon's transformation. The Programme Delivery Dashboard has given LBC a vital management tool. But it has done much more than that. It has engaged and reassured stakeholders, allowed them to bring forward projects and

grasp new opportunities, identified areas of infrastructure requiring investment, helped secure funding commitments, and promises to transform radically how regeneration schemes are planned and delivered in the future.

Arup's Programme Delivery Dashboard has added a vital and timely momentum to the regeneration programme that has helped to secure Croydon's transformation, and offers a prototype with which other major urban regeneration schemes can win support and funding.

Electracy - Digital and the Future of Consulting

—A summary of the Young MCA 'Digital and the Future of Consulting' event, part of the MCA Year of Digital Written by Sarah Murray, IT Advisory – Digital Consultant at EY and Young MCA Member.

As often in the MCA's Year of Digital, the question 'What is Digital?' posed at the recent Young MCA panel event hosted by KPMG, sparked a lively discussion.

Definitions from panellists included:

- "Digital is about technology change, organisational change but also social and cultural change."
- "It's about the magic in data and technology"
- "It is not about just 'digitising' the problems of the past, but rather identifying opportunities for efficiencies."
- "It is about breaking barriers to entry."
- "It is about serving the customer anytime, anywhere."

Panel (L-R): Leah Williamson, EY; Tom Roberts KPMG; Paul Connolly, MCA (chair); Agata Cooper, Accenture; Rob Price, Atos; Johan, Hogsander, Transform

Panellists illustrated the scale of the change by referring to the experience of a commuter, able to access news, mobile phone calls, their workplace, books, music, film and TV – all on the same handheld device. Products and services previously delivered through separate systems are now underpinned by common binary coding, collapsing boundaries between industries and creating new expectations among consumers about access and convenience.

1. How is Digital changing clients' needs?

The panel agreed that Digital has shaken-up the traditional roles in our clients' companies. CIOs are becoming CDOs and moving onto companies' executive teams. But panellists agreed that this was only meaningful change if it led to cross-company ownership of Digital. The CIO taking the agenda with them by changing their name would not be enough. In properly Digital enterprises, Digital is about everyone.

As more businesses perceive the strategic opportunity of Digital, Digital Consulting has expanded hugely in recent times. MCA members are advising consultants on the full range of Digital "disruptors". Indeed, when a member of the audience enquired whether we should leave Digital to the specialist agencies, our panellist argued that the necessity for this cohesive approach means that a consultancy's ability to take a birds-eye view could offer a more holistic, and ultimately better solution.

In addition, many clients are now asking consultants to "help them go Digital" as though this means the same thing for all of them. Digital is a 'known unknown' for our clients. Consultants are working to define what this means for particular client circumstances, and to help them undertake their individual journeys.

2. How is Digital changing the assumptions of consulting and how it is done?

The pace of Digital is changing how consulting is done. Strategy is changing. Companies need to answer problems quickly, to mobilise short-term Digital answers to short-term problems, and adapt with agility. Programme management now depends on real time information and data rather than a series of plans mapped

out in a Gantt chart. Benchmarking, once a staple of consulting, may be less relevant in the Digital Age, where every firm's Digital answer will be different.

These factors are not just changing how consulting is done. They are challenging traditional assumptions around roles, responsibilities and hierarchies in consulting firms. There are huge opportunities for Digital natives to help reinvent consulting.

3. What changes is Digital making to the skills needs of consulting and what do young consultants need to do to get the most out of the Digital opportunity?

One panellist suggested that the need for literacy in the workplace was giving way to the need for *electracy*: fluency in the creative and communication potential of a range of technologies. Consultants of the future would need to:

- Be adaptable to new technologies in the ever-connected, ever changing Digital world
- Have depth and breadth , essentially T-shaped, knowledgeable across the entire Digital spectrum, but with domain specialisms
- Be curious consumers of Digital. Consultants must keep up to date and use their own experience to inform, engage and understand our clients

This provides great opportunities for young consultants. Panellists said that in recruitment they were now looking for people who could think differently and were not necessarily traditional consultants. They want the 'innovative creative': someone Digitally informed and able to apply their expertise to challenge traditional assumptions and reinvent products and services. Panellists agreed that this might start to reverse the dynamics in the workplace, with new recruits able to teach more seasoned consultants some new tricks. Panellists and the audience felt that Digital was making consulting more exciting and a more attractive profession. And there was great optimism about the potential of Digital to realise new possibilities. As one panellist put it, "There is enough technology out there to make it possible. So let's think about how we make it awesome."

Omni-Channel - Retail at a Crossroads?

—LCP Consulting examine the future plans of businesses in the retail sector. By Phil Streatfield and Stuart Higgins, LCP Consulting

As the MCA's Year of Digital is showing, Digital is driving relentless change across all sectors of the economy. Nowhere more so than in retail.

Retail has always been dynamic. But the pace of change is accelerating. Innovations in technology, customer service and order fulfilment set new standards – and drive new expectations. Some retailers are forging ahead to become integrated omni-channel businesses. Some are happily doing their own thing. Others are struggling to keep up.

For its new report, The Omni-Channel Dilemma, LCP Consulting researched a broad spectrum of 100 retailers from the UK and the USA.¹ The report looked at current activity and future plans and identified five key findings.

1. Customer expectations around personalisation, convenience and consistency of service continue to drive change.

The LCP research identified the need for retailers to understand where they sit in the marketplace, what they should focus on and the best model for them to adopt, using Four Retail Archetypes© defined by LCP as:

- Omni-channel Pioneers
- Optimised Multi-channel or Pure-Play Retailers .
- Omni-channel Followers
- Challenged Multi-channel Retailers

The Omni-channel Pioneers™ are resetting customer expectations and raising the bar for the whole of retail. They have fully committed to transforming their businesses to give customers a seamless experience. And it's not all about speed. The growth of click-and-collect in the UK shows that the customer is sometimes choosing convenience over speed.

2. The omni-channel future is not inevitable for all: Different strategic positions are emerging with omni-channel pioneers and optimised multi-channel/pure-play retailers the likely winners.

While Omni-channel Pioneers™, who are typically larger retailers, are breaking new ground, not everyone can or should follow them. Optimised Multi-channel or Pure-play Retailers™ make a strategic decision not to use all channels. Whether focused on physical stores or online, they are capable of being leaders in their own markets.

By contrast, Omni-channel Followers™ are late adopters of an omni-channel future. They want to develop a seamless service. But they have not yet achieved a fully integrated business model to do so. As a result, they are at risk of not establishing the core systems and embedding the transformational change needed to succeed.

Our final category, Challenged Multi-channel Retailers™, are trying to adapt to a multi-channel world by flexing their bricks-and-mortar infrastructure. With no apparent plans to invest in the necessary transformational changes and capabilities, they face the greatest risks.

3. Boards need to be clear about which retail operating model they want to build and must fully understand the implications of the choices they make.

Boards need to know what sort of business they are, how they relate to omni or multi solutions. The lack of a properly target model will mean insufficient investment to deliver the required changes. And if a retailer just getting to grips with these issues wants to make a step change, it will need to mobilise resources right across the business. Moving towards the Omni-channel Pioneer position requires massive transformation and must be led actively from the top.

Businesses also need to be aware of what their immediate competitors are up to. There are sustainable strategies for multi-channel and pure play. However, if retailers maintain such approaches in a retail subsector where omni-channel competitors are raising service expectations, they could be at risk.

4. For those retailers pursuing an omni-channel strategy, the key message is that back-end capabilities must be aligned with front-end customer promises.

A critical finding in our report is that if retailers primarily focus on a marketing agenda they may fail to deliver on their customer proposition and brand promises. A retailer adopting an omni-channel strategy must significantly increase the number of choices of service offerings available to customers. This inevitably drives up operational complexity. Legacy systems and capabilities are generally unable to cope. So comprehensive transformation of the operational backbone of the business is central to sustainable success.

5. Omni-channel pioneers who have realigned their business operating models are reaping the benefits in three areas.

The first area is growth. Some pioneers are experiencing sales growth of 10-20%. The second is differentiation and enduring competitive advantage. Pioneers have been able to respond with agility to ever-increasing customer expectations. And the third is consistent delivery of the customer promise, critical to keeping customers loyal.

As we have seen, the successful omni or optimised multi models are resource intensive. But investment is essential. Any misalignment between marketing-led customer promises and operational delivery will devalue the brand. Managing the change means dealing with potentially difficult decisions, such as a complete overhaul of IT infrastructure. But the rewards in growth, differentiation and enduring competitive advantage, are worth it.

Moves to omni-channel in retail continue to gather pace. If retailers haven't yet made a choice of model, they will find their competitors soon will. Of course, once their choice is made the implications for the whole business need to be fully understood. The chosen model can only be realised through complete cross-functional transformation and organisation-wide commitment.

Clicks or Bricks? The Retail Customer Journey of the Future

—A summary of the Young MCA 'Retail - Clicks or Bricks?' event, part of the MCA Year of Digital, by Alice Maschera from Integration Consulting

.As part of the MCA's Year of Digital, on Monday 8th December, PwC hosted a Young MCA Panel event titled *Retail – Clicks or Bricks?* Approximately 200 consultants attended to hear the opinions of the four expert panellists. The session was chaired by Paul Connolly, MCA Think Tank Director.

Unlike previous Young MCA events, we decided to do things a bit differently. We showcased technologies that aim to change the retail world. Attendees had a chance to try out technologies from Space 3D, Inition, MakerBot, HOLO and Leap Motion.

Before the panel discussion kicked off, we were welcomed by MCA Board member and Senior Partner, Claire Stokes (PwC), who introduced us to our panel guests: Matthew Tod (Head of the Customer Practice at PwC), Richard Lim (Head of Business Information Services at the British Retail Consortium), John Miles (CEO of Space 3D) and Janaina Roque (Director at Integration Consulting).

Matthew Tod, Retail & Consumer Partner (PwC) and Claire Stokes, MCA Board Member (PwC) trying out Fashion3D by Space3D

The panel gave their views on the main trends in the market, looking particularly at the challenges retailers face as a consequence of the changes in consumption habits:

- A new model for consumption is emerging – consumers are now using online and offline simultaneously: the "BIMBO" approach (Browsing in store on mobile, buying online). This may not signal an end to the perceived war between the high street and Digital. But it shows how shopping is being continually reinvented.
- This reinvention is driving lots of activity in the retail sector, including relentless Digitisation.
- But while this activity is good for Digital specialists and advisers, it does not necessarily mean that all retail is profitable. Relentless discounting is good for consumers. Panellists expected a busy Christmas for retailers. But the very low and even loss-making margins may not be a sustainable model for retail
- Given the current trends in the market, retailers must choose between being cheap, being convenient or providing a quality customer experience. Non-food retailers are tending towards providing the last. Food and grocery discounters are excellent at being cheap. This pushes traditional grocery retailers, who struggle to offer excitement in the process of buying of toilet rolls, towards convenience.
- Click and collect is on the rise at the moment as a model for convenience. However, this may prove simply a temporary solution while retailers get their delivery operations up to speed. Quick, customised delivery will be the game-changers of the future.

The fluidity between online and offline creates complex dynamics around issues of customer loyalty. Customers are able in theory to choose freely from a huge range of purchase options using an unprecedented wealth of information. Brands by contrast will deploy information about customer preferences to entice them and even make them offers of discounted services, trying to tie them into loyalty in exchange for even more data.

Panel (L-R): Matthew Tod, PwC; Richard Lim, British Retail Consortium; Paul Connolly, MCA (chair); John Miles, Space3D; Janaina Roque, Integration.

The panel debated the issues around 'Big Data' at some length. Increasingly, citizens and legislators are concerned that retailers have gained undue control over data assets that should properly belong to citizens. The audience showed great interest in this topic, both when asking questions directly to the panel and when using the 'Sli.do' facility. 87% of attendees voted that individual consumers should own their personal consumption data rather than brands. The panel expressed the view that:

- Many retailers are still unable to really make good use of the data that they collect.
- While it is true that retailers should be 'ethical' with the data they collect, data can be a huge revenue stream for retailers. Thus, it is also up to the individual to be careful with their own data.
- Big data is a two-way street. Retailers benefit from having consumer information and driving trends. But consumers know more than ever before about brands and can offer positive and negative feedback. Indeed, there is very high correlation between sales and review scores
- In practice, legislators are very likely to give citizens greater control of their data in the near future. This may be resisted by businesses, but should in practice provide opportunities for new and also traditional retailers. Indeed, if citizens control their data, not only would they be able use it in their own interests. They might also prove relaxed about sharing more information with preferred suppliers to secure good deals, knowing that at some point in the future they will always be able to reclaim their information and limit its broader usage.

Overall the consensus was that instead of Clicks OR Bricks the future of retail is likely to be Clicks AND Bricks, with 71% of attendees agreeing that Digital is reinventing the high street rather than killing it.

At the event, guests also had a chance to test products related to the theme of retailing and online experience merging, such as 3D printers.

Demos were made available from:

- Space 3D
- Inition
- Computers Unlimited
- Leap Motion, and
- HOLO

Retailers have to transform relentlessly to keep pace

—Richard Robinson, Managing Partner of Oystercatchers, looks at growth in the retail sector.

Richard Robinson, is bullish about Digital growth in the retail sector. "The necessity for firms to innovate to respond to the demands of increasingly savvy Digital consumers is driving furious business change. And much of this concerns their marketing propositions." As Britain emerged from post-2008 doldrums, CFOs started to realise that they would need to invest in Digital to avoid competitive and market-share problems in the future. "Now they are investing wholeheartedly."

Despite the rapid changes in retail, Richard hasn't seen any evidence of a slowdown. "Retailers know they have to transform, almost relentlessly, to keep pace with a new world driven by technologies and we are seeing a succession of new propositions coming to market. So we're confident that demand for our services will continue to grow." Richard points out that everyone is modernising. Morissons for example, fairly late to the Digital party, has recently launched an online sales and delivery proposition, and new app. "There are great opportunities still to be had. The catalogue brand Shop Direct has seen triple digit growth in recent times and is now the UK's fourth largest retailer. It has done this through recognising that its target consumers, traditionally in the C&D socio-economic bracket, are increasingly Digitally aware and want to shop differently."

The challenge for retailers and producers going forward will be to retain brand loyalty and the influence that they have been able to derive from Big Data. "Soon, possibly in the next twelve months, consumers will be in full control of their data. So in order to keep consumer loyalty, brands will need to convert data into value for consumers. And that will mean new innovations and new offerings." Richard says firms will need to secure market advantage through solving real problems and unmet needs for consumers. He cites Vodafone's success in Egypt as an example. Here they encouraged retailers to provide pay-as-you-go mobile phone credits called 'Vodafone Fakka' as a convertible currency to replace the mountains of change high inflation has meant Egyptians have to carry and which they resent. "Vodafone's consequent dominance of the Egyptian market stems from practical problem solving. This has clear First World implications and has been exciting to watch."

MCA Year of Digital Events with the Digital Catapult

—As part of its Year of Digital, the MCA was delighted to host two events with the Digital Catapult.

As part of its Year of Digital, the MCA was delighted to host two events with the Digital Catapult. The Catapult is a government-funded initiative to support SME Digital enterprises. It aims to accelerate the best ideas to market, creating new products, services, jobs and value for the UK economy. MCA member firms have strong relations with SMEs and new ventures. Larger members sponsor entrepreneurship awards. Some partner with Digital 'insurgents' on assignments. Many are SMEs themselves. And as the Year of Digital is demonstrating, there is a wealth of Digital insight across the broad spectrum of MCA firms. MCA members are thus well placed to contribute to the exchanges of views and expertise the Catapult aims to foster.

At the first event, *Catch Me If You Can*, a panel of experts from the consulting industry set out their thoughts on Cyber Security. They then challenged an audience, comprising a mix of Digital SMEs, start ups and MCA consultants, to come up with small business ideas that could help combat the Cyber threat.

Mark Brown, EY's Executive Director of Cyber Security and Resilience, revealed he recently briefed upper echelons of both UK and US government about the threat facing businesses. He suggested that if one Russian hack alone obtained 1.2bn identities (equivalent to hacking India), it wasn't a question of whether corporations, governments or individuals would be hacked, but when. Most had probably already been hacked and didn't know. The challenge was anticipating threats, adapting and responding to attack.

Rob Price, Head of Digital at Atos, described the logistical complexity of Atos's longstanding role in ensuring that the systems and technologies underpinning the Olympic and Paralympic Games are secure. He reflected on the skills challenges associated with Digital in general and Cyber specifically, which sparked a discussion about how traditional recruitment processes were ill-adapted to finding the candidates most able to help firms combat Cyber challenges.

Sam Keayes, Vice President Security and Consulting at Thales, argued that Cyber attacks often target vulnerable bits of the supply chain. Defence corporations, governments and big businesses have armies of personnel protecting them. But they interact with smaller suppliers, professional services and even individuals, who are more susceptible to intrusion. While large organisations impose standards on their suppliers, Sam felt supply chain resilience was an area where SMEs could help.

The workshop sessions looked at how SMEs could develop Cyber-related business propositions. Delegates generated some interesting concepts, especially around testing businesses' Cyber resilience and assessing their systems, skills and other capabilities.

One thing is clear about the world of Cyber Security. Currently many of those with formal responsibility for it are often process driven. This creates a slow-moving compliance bureaucracy. Digital innovation by contrast moves fast. Hungry SMEs, with Cyber insights, might be able to bring the agile world of Digital innovation to conservative security and resilience industries, and help reinvent them.

The second event, *Data Is the New Money*, engaged with a similar audience on the business opportunities associated with Big Data.

Shahbaz Haque, Director at Hitachi Consulting, argued that getting value from data was nothing new. However, exponentially increasing volumes of data, constantly enlarged by new developments, such as the Internet of Things, created new challenges. Big Data business opportunities would now flow from insights secured by connecting data to the range of technological changes associated with Digital and creating holistic business solutions, built round customer needs.

John Levell, Associate Partner and Head of Digital, EY, explored that data growth in some detail, pointing to the unmanageable volume and variety of data being generated already and how this is likely to continue to grow. However, he indicated that a focus on business value and potential impact, rather than just on the data itself, might make this challenge more manageable, and also give clues for potential Big Data entrepreneurs as to where they should focus their efforts.

Carlo Gagliardi, Partner and Co-Lead of Digital, PwC, suggested that organisations that decoupled data from its source questions to make smarter business decisions would derive advantage. He also explored the increasing resistance to the control large corporations had secured over much data. If citizens secured data ownership, this would change their relations with business, but also create opportunities for those businesses that could side with them and help them realise their goals.

The workshop sessions explored what value SMEs' own data might have, as well as how Big Data could be used to create new business opportunities. Delegates felt that the position of SMEs – often close to new consumer needs, or brokering B2B relationships – meant they were well placed to develop new Big Data propositions, especially those that integrated product and service experiences around the customer, promoted convenience or even took the form of customer advocacy.

It was also noticeable in these sessions, as well as in the first event, that Digital entrepreneurs sometimes felt inhibited in advancing their business propositions owing to their inability to get through the doors of the big corporations who might benefit from them. Partnering with other players who have that access was suggested as a way forward. But overall, there was a sense that big business in Britain needed to be more receptive to the insights SMEs can afford.

In collaborating with the Digital Catapult on these sessions, to share ideas and explore new propositions, MCA members, large and small, showed that consulting sets a clear example of that kind of openness to emerging sources of insight.

We look forward to an ongoing collaboration with the Catapult.

The MCA would like to thank Alex Vail, Michella Oswald and Geraldine Moor at the Digital Catapult for their support in setting up and running these two events.

Seven Public Sector Digital Themes

—EY's Stuart Robinson, Senior Manager, Enterprise Intelligence, and John Levell Associate Partner and Executive Director Digital, discuss the debate around Digital in the public sector.

Much of the debate so far during an enlightening MCA Year of Digital has focused on the commercial and competitive advantage arguments for embracing Digital relevant to the private sector. There, the 'adapt or die' rationale is undeniable. But the relevance of this dynamic to the public sector is perhaps less obviously apparent. So it was refreshing to be at the recent MCA Think Tank roundtable on Digital in Public Services with Kathy Settle, the Director for Digital Policy and Departmental Engagement at the Government Digital Service, and to share perspectives on the imperative for Digital in Government.

Without competitive pressures, the public services have been understandably slower to embrace Digital than the private sector. But there is no question that, with GDS leading the way, they are now running to catch up. Activity is driven in part by the austerity agenda and also by the changing social environment. Digital can enhance efficiency and transform the relationship between citizens and the public sector. The goals of saving and reinvention, particularly if realised in combination, could have a profound impact on public service provision.

Customers and citizens expect to engage on a more real-time basis. Social media, Cloud, data analytics and mobile are rapidly transforming us into an increasingly information-driven culture. Our expectations and interactions are fundamentally shifting. There are huge opportunities for those able to move quickly to adopt and exploit the pace and scale of change. But these changes also challenge organisations to evolve their skill sets and thinking, either to transform existing processes to harness Digital or identify where and how they can innovate.

Government will need to work differently, using new skills. Putting the citizen at the centre of everything and driving innovation in a more agile way, from policy development to execution, changes operational considerations and structures. There are also legacy services and systems that will need to co-exist with those that are newly Digital. This is hard stuff to get right in commercial organisations let alone in something as large and complex as the UK's public service landscape. It requires leadership and vision. And Digital is fast-moving, which is not always been the case for government.

Government is waking up to the need to harness Digital for better public service provision. The Government Digital Strategy is a well-documented initiative with laudable intent. GDS has made significant progress since its inception towards 'Digital by Default' and should take much credit for helping to generate a wave of change in how government services are provisioned, procured and implemented. Focusing initially on 25 transaction-heavy

'exemplars', GDS has made considerable gains in streamlining operations, whilst maintaining service quality at reduced cost.

The MCA roundtable showcased some of the work that has already gone into these areas and identified challenges which GDS and government have yet to overcome. And there is a lot still to go at to transform the government machine itself.

Government still has to wade through the quagmire of basic wiring issues associated with getting old legacy and new Digital platforms to coexist. There is also substantial work to be done to raise awareness of the opportunities Digital offers and a need to engage the majority of public servants who sit between the policy and strategy innovators and the front line evangelists. This is where much of the change to the 'way things have always been done' needs to happen. If GDS is able to broker this, then public services will have the opportunity to transform. The private sector is already moving to a real Digital conversation that is genuinely customer-driven. Truly responsive government lies down a similar path. It is a realistic goal. But we are not there yet.

After much detailed discussion, the MCA Roundtable identified seven core themes to the Public Sector Digital debate:

- What government can coordinate. There is a very important role for central government activism where services that require citizen-centric approaches span numerous agencies and delivery bodies. The role of GDS in aligning capabilities and getting central and local bodies to coordinate their efforts may be critical here.
- Citizen-centric service innovations at the frontline. These are particularly those innovations stemming from direct service pressures and expectations felt by delivery bodies working at the sharp end. These are not quite the same as the market forces operating in the private sector. But they are analogous to them. Successful initiatives of this sort impact citizens directly. Indeed, they are often instigated by citizens or are a response to their demands.
- Government as a facilitator, not solely a direct deliverer of services. Private bodies may be able to provide (often even spontaneously) public service information and even service platforms cheaper, better and more efficiently than government. Government will need to create the right enabling conditions for this new approach, including its continuing efforts to place more information in the public domain that citizens, citizen advocates and Digital entrepreneurs can use. It must also ensure that it applies the right standards and acts as an effective regulator of this sort of provision.
- Digital skills and culture across the public sector. Deepening Digital innovation will depend on a workforce that can embrace and engage it
- Data ownership. Just as in the private sector, where there are real concerns about corporate ownership of consumer data, so government needs to ensure that citizens 'own' the information it holds about them. This will change the terms of the debate about data and services, encouraging citizen participation and allaying fears about state paternalism – or worse
- Measurement. This should extend beyond take up and savings and include measures such as social value
- Improving citizen access. The Government has committed to providing Assisted Digital support to help those offline use Digital government services. However, through its Digital Inclusion Strategy, it also wants to ensure that everyone in the UK has the Digital capability to take advantage of being online. This means tackling the barriers that prevent people from doing so (lack of skills, access, motivation and trust) and not just widening or speeding up the broadband network. In other sectors, such as financial services, it has proved cheaper in the long run to provide target user groups with tablet devices and simple service access mechanisms. Government could learn some lessons from these types of initiative.

Of course, government also has a role in relation to the wider economy on Digital. Education policy impacts our Digital skills base. Government can promote Digital through its growth strategy and approach to regulation. Initiatives such as government support for Tech City and the Digital Catapult, which helps new Digital entrepreneurs, are examples of what government is already doing in this area. MCA members have already made contributions to debates about government's role, especially in the area of skills, and will continue to examine its role as a sponsor and regulator.

Yet there is no question that government's ability to influence the UK's wider exploitation of Digital will be impacted beneficially by its own standing in the use and deployment of Digital capabilities. These have the

potential to be as transformational to government as they have proved to sectors such as the music industry. It will be a fascinating journey.

Citizen centric Digital services at the frontline in health

—Bhagiyash Shah, Director at Prederi, looks at Digital within the NHS

Government has identified that promotion of Digital channels and services has significant potential benefits. Digital services improve engagement with citizens and the quality of service delivery. Citizens use many commercial Digital services (for retail, insurance and travel) and increasingly expect to use Digital as their default interaction with a service provider. Digital can also reduce costs of service delivery, streamlining existing models, and diverting more transactions to automated and 'self-service' channels.

Within the NHS in England, Digital is driven by a mix of national initiatives and standards and local (and largely autonomous) activity. The central Health and Social Care Information Centre (HSCIC) and NHS England (NHSE) have stimulated the exploitation of Digital services for Primary Care through a number of initiatives. They have developed an overarching 5-year Digital and paperless NHS strategy for all health service providers. They have provided funding to upgrade and refresh GP IT systems and communications infrastructure (e.g. high speed broadband) and have funded a number of pilot programmes. Their national specification for Primary Care IT includes requirements for Cloud-hosted patient records, basic Digital service capabilities and interfaces to enable easy, secure and paperless sharing of patient records across the NHS. And GP contracts required general practices to provide basic online services for patients, such as the ability to book appointments and order repeat prescriptions online, by April 2015.

GPs in turn provide Digital services to their patients within the overall local Health strategy developed by their local Clinical Commissioning Group (CCG). The CCGs look at the provision of services in a locality. They develop and promote a locally tailored IT Strategy with GPs and other providers (including hospitals and Out of Hours care).

The current position Primary Care Digital services in England is varied. Some GP practices have been offering online appointment booking for many years, while others are only just starting. Some have high quality web sites with information on local services that support patient self-help and reduce unnecessary face-to-face or A&E use. A number of GPs use Skype to provide more convenient services. But other practices are struggling with insufficient internet bandwidth to operate Cloud based IT systems. While some local health networks are fully digitised, with all patient information captured and communicated electronically, others print letters, then scan them to maintain the semblance of a Digital record. And while many GP practices share basic patient records on the national NHS 'spine' service, to allow hospitals to access critical information on medication and allergies, this is far from universal. Some patients calling NHS Direct or visiting A&E still have to provide their basic medical information themselves to the health professionals dealing with them.

In practice, the adoption of Digital across local health providers is a learning process, with some successes and some teething problems.

GPs have learned that marketing Digital services is challenging. Digital take-up cannot be assured by leaflets and posters. Local administrators and health professionals have to market online services directly in engagements with patients. However, Digital service benefits are not fully realised unless future patients are made aware of them before they need help. How to communicate and signpost Digital services for local citizens (including both current and potential service users) is a new challenge that GPs, CCGs and Local Authorities are grappling with. Unlike commercial Digital services, with tangible monetary or convenience value, the benefits of health Digital services are not always clear to patients. So communication and engagement has to be thought through carefully.

Sharing patient records across organisations is a complex business. Most patients expect NHS professionals to share Digital information for effective clinical care. Indeed, they do not necessarily distinguish between different NHS components and see the NHS as one organisation. But the reality is that the health and social care system is a complex network of public bodies and commercial entities. For Digital services to be effective and drive out end-to-end efficiencies, all local health and social care organisations will need to collaborate and share information. For this, they must have common standards of connectivity, service infrastructure and information standards.

Furthermore, however relaxed patients appear to be about information sharing, they need to be informed about it, so they can understand any implications and how sharing affects their rights. Unfortunately, there is confusion about the rules that govern data sharing and what consent is needed from patients, confusion inevitably compounded by a multi-provider, public/private environment. The deployment of the paperless NHS and citizen Digital services will be hindered unless there is greater clarity here. All health practitioners and commissioners need better information, as well as education and training.

Further, for Digital services to be successful, more 'control' for their design and operation needs to sit with service users. This means IT professionals must reinvent themselves and acquire skills in facilitation and empowerment. This is a major shift and one that needs to be instigated and promoted by CCG commissioners and Clinical leads within the major health providers, including hospitals.

Health service managers are trying to achieve all this against a backdrop of relentless Digital change. Most people under 20 expect to manage their affairs digitally. New technologies come onto the market constantly. Indeed Digital is not just destroying analogue. New Digital is already replacing old Digital. This impacts health. Commercial IT providers are developing new products and services to respond to the NHS Digital Strategy. They see public and preventative health, as well as community care, as areas ripe for Digital exploitation, especially through the adaptation of technologies already in use commercially to support citizens' personal fitness regimes. In this fluid world, all health service managers need long term strategic focus. But they also need the tactical agility to make course corrections to avoid technology pitfalls and exploit emergent opportunities. Again, these are new skills and capabilities needing development.

The reality is that many health providers cannot rise to these challenges unaided and without real openness to and awareness of what is going on in other sectors. In the course of our work, we provide support to many health providers who are at different levels of Digital maturity. One way in which we can help them is by giving an overview of what is going on elsewhere in the health sector. We also try to cross-fertilise their thinking with the best Digital ideas from the other sectors in which we work, such as local and central government.

Social Media and the Future of Business

—Annabelle Thomson, Analyst at KPMG, summaries a Young MCA's debate

As part of the MCA's year of Digital, the Young MCA hosted a panel debate on 'Social Media and the Future of Business'. The panellists for the session, which was chaired by MCA Think Tank Director Paul Connolly, were Glyn Knaresborough (CSC), David Woodhead (CSC), Peter Neufeld (EY) and Kat Mandelstein (PwC).

The technology behind social media is not complex. So creating a social media campaign relies upon having someone in a firm with the ability to act differently. MCA member firms are successfully engaging with social media in innovative ways. CSC's Valentine's Day 'I Love' Campaign, for example, confirms that consultancy firms have the capacity to do something different. The 'I love' campaign attracted customers to a brand at zero cost and generated 200,000 website hits in one week.

This example highlights how social media is an effective medium of communication between organisations and customers. We are increasingly seeing new ways that brands and customers can engage with each other. Social media is facilitating the exchange of knowledge between two parties. There is an exchange deal that exists between the customer and the user. For example, Google give you free storage, email and search engine- and in exchange the user gives them access to track their behaviour.

Social media has opened new pockets of power, for both brands and customers. For brands, social media is powerful as it gives them an insight into customers' issues in real-time. As a result, they can adapt their mode of delivery to meet customers' needs. Those organisations and brands that are weaving social media into their existing offerings are ahead of the curve. These include Barclays who have added Twitter to their instant mobile payment app PingIT.

As for consultants, social media is powerful for both understanding their clients' customers but also from their employees' perspective. Internally, when organisations are effectively using social media it can create a collaborative community in which employees' voices are valued and recognised. 'Digital Natives' are given more responsibility. This helps reshape the business. We are seeing a wider mixture of skills and ages being combined in consulting teams, transforming business approaches. PwC terms this the creation of 'Digital Tribes'.

It is evident that MCA members are leveraging the power of social media. Yet they must not become complacent, but ensure they remain ahead of the game.

Firms have an opportunity to connect more with their customers through social media channels. Customers' sphere of influence and power is heightened by social media. They have the opportunity to do extraordinary things to brands, both positive and negative: become loyal supporters, collaborators, critical voices, hostile forces, destroyers of reputations. And businesses will simply have to respond. Social media is fast and continuous 24 hours a day, not a traditional customer service centre open for complaints Monday to Friday, 9 to 5.

Polls taken during the evening demonstrated that firms must continue to engage with employees through social media. To examine how MCA member firms engage with their employees via social media, the audience were asked:

- Do your firms use snapchat? There were no hands.
- How many of you follow you firms on Twitter? Many responses
- How many of you retweet something your firm has tweeted? An improved response, few hands.
- How many of your firms follow you on Twitter? Very few responses

The responses indicated that there is always scope for improvement. In particular, it showed that firms could do more to marshal their workforces' energy on social media to support their own strategies. Indeed, firms must respond to the pace of social media interaction in order to drive engagement, be it with customers, clients or employees.

Before platforms and networks there were people and things. There are still people and things, but platforms and networks have become crucial to how things are consumed and how people interact. For firms, irrespective of sector or size, they have no choice not opt into these platforms and networks, such a social media. Firms of all sizes across sectors can always find ways of engaging with their customers and employees to stay ahead of the curve. Customers will use social media to talk about brands irrespective of whether the brands have a social media presence. Where firms do have a choice is that they need not exist on every channel and push content out continuously. Rather, firms need to know what channels their customer base are on and engage with them this way.

Social media is always on. Customers can always engage with brands. Our clients – and we as consulting firms – need to respond to this in order to stay ahead of the game.

Why the biggest trend for wearables is taking them off

—Alexandre Piper, Consultant at BearingPoint, takes a closer look at the wearables industry.

Wearables are all around us. In recent years we have seen the launch of a fresh batch of wearable products, ranging from wristbands to glasses to watches from corporate heavyweights including Barclaycard, Google, Samsung and Sony to name a few. Despite this, the wearable industry is stalling and struggling to take off, with the UK market recently estimated to be worth only £313.6m. [1] Wearables are yet to be proven as indispensable and many of the current crop lose their appeal within months, retreating with a whimper to the desk drawer. One third of consumers who purchase a wearable stop using it after six months. [2]

I have been following the wearables industry closely ever since I began working on the release of a payment wristband for one of BearingPoint's clients. Working in wearables on the front line of technology and corporate innovation has been a fantastic experience. But whilst I am a devout advocate of the wearable proposition, I cannot help but agree that the biggest trend in the wearables industry is taking them off. Let me explain where I think the industry is and what we will start to see more of in the future that will enhance the value proposition.

The Current Market. The fundamental issue with the wearables market is that the products are not really solving a problem. Products are more gimmick than desirable and there is still a strong focus towards fitness features or smartphone notifications. Whilst these products have been successful to an extent, these market areas are still quite niche. True fitness fanatics are yet to be convinced that wearable activity trackers are a direct replacement for GPS based sports watches and there are mobile apps that serve the same purpose for a fraction of the price (and my phone vibrates when I receive an SMS so I do not really need a wearable to tell me that either).

Wearables – a fragmented market. All of the above represent products that are single purpose with single use cases and have had relatively limited success. The market is fragmented with single purpose products. Consumers don't want to have their body covered in lots of different wearable products (and are unlikely to be able to afford to either). On the subject of fashion, wearables have been classed as more 'geek than chic' whilst some other products in the market lack sophistication. A few fashion conscious startups (e.g. Altruis, Ringly and Cuff) have attempted to add design flair to wearable products but are unproven.

Wearables – the opportunities. The main opportunity lies with the development of multipurpose wearables that are more likely to appeal to the mass market. They could encompass activity tracking, notifications and payments as a starter. Multipurpose will make wearables less of a niche market product and will provide users with a genuine desire to buy a wearable, rather than making a conscious choice to be an early adopter. In fact Gartner predicts that global wearable fitness device shipments will drop from 70.2m (2014) to 68.1m (2015) due to "an overlap in functionality between smart wristbands, other wearable fitness monitors and smartwatches". [3] On the fashion front, opportunities exist for partnerships between technology and luxury/lifestyle brands with technology companies providing the ingredient (e.g. a contactless payments chip) that can be incorporated into designer

goods. Likewise, combining the multipurpose and partnership themes leads to further potential to add access (gym, office or event) or loyalty (all of your loyalty cards on your wearable).

Wearable technology has the potential to change society. The technology is in place but the need and multiple use cases for this technology coupled with a sleek and fashionable design are not yet. Smartphones didn't really take off until the market was graced with the iPhone, a well designed device that put a marker on aesthetics in the smartphone industry. Whether the Apple Watch will have a similar watershed effect for wearables is yet to be seen. But what is for sure is that if wearables provide these missing ingredients, this year could well be the year we see wearables go from niche to mass market. The market is wide open. Watch this space.

Summary:

- Wearable products are more of a gimmick than a genuinely desirable product and currently focus on niche areas
- The wearables market is fragmented and many products have only a single purpose (e.g. activity tracking, notifications) and are seen as more 'geek than chic'
- To increase desirability, wearables need to be multipurpose and fashionable
- Potential opportunities exist for technology companies to incorporate their product in partner products as an ingredient
- Wearables are here to stay. There is a significant opportunity to develop multipurpose and well designed products that will appeal to the mass market, similar to the way that the iPhone revolutionised the smartphone market

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[1] http://www.samsung.com/uk/news/local/wearable-tech-market-predicted-to-be-worth-104-7-million-pounds-to-uk-retailers-this-christmas

[2] http://endeavourpartners.net/wearables-making-headlines/

[3] http://www.gartner.com/newsroom/id/2913318

Bridging the Digital 'expectations gap'

—Daniel Symonds, IBM's European Mobile Leader, looks at how the public sector is adapting to increased mobile device usage

The continuing explosion in mobile device usage across both the private and public sector is fuelling the need for Government organisations to accelerate their shift to Digital channels, mobile-enabling their workforce, and transforming their business models.

Increasingly mobile-enabled citizens and consumers are challenging work place assumptions. This dynamic is driving reform in the public sector. The lines between workplace and home are blurring too. Police officers and care workers expect to work with the same mobile flexibility they have when using mobile banking or ordering their weekly shop through a retail app. And why not? The public sector workforce of this century will be populated by 'Millenials' who have an entirely new expectation of how they will live and work.

The benefits of cost reduction and efficiency improvements are real, tangible and significant. The Cabinet Office and GDS know this. They published their initial Digital Strategy at the end of 2012. This was set to kick start a step change. Yet many parts of the public sector are still struggling to begin the journey. They are unsure what to prioritise, and how to avoid knee-jerk Digital initiatives that promise much but deliver little benefit. In short, they don't know how to bridge the 'expectations gap'.

Why are they struggling? Firstly, too many projects start from the IT and work backwards. In order to prioritise what's important, the move to mobile needs to be firmly rooted in business issues. Business benefits of channel shift and mobility need to be aligned with the transformation in business transactions or processes which they are dependent on. Simply giving a public servant the functionality of their PC on a mobile device typically results in a dis-engaging end user experience. This won't scale up and realise the desired cost savings and productivity improvements. To build engaging end user experiences, public sector bodies should place value on user design in the same way firms like Barclays, who are leaders in Digital innovation in financial services, do.

However, the signs are positive. In 2015 the UK Post Office embarked on front office/branch transformation and the NHS its Electronic Staff Records project. These will entail building new skills and capabilities in those organisations. It will also mean engaging suppliers in supporting both the IT journey and more importantly the creative and visual design. The most successful mobile applications are those that engage their end users, who reuse their elegant, functionally rich designs repeatedly.

Scalability is also important. To benefit the organisation, mobile transformation needs to serve large scale workforces. Models for desktop and web application support are well understood. But mobile requires a new approach: an agile methodology, where functionality is updated in cycles that are typically weeks and not months long. The business, IT and suppliers must align behind a new way of working supported, not hampered, by the commercial model.

Public sector trends are starting to emerge. Large ERP back end systems for HR, payroll and finance can deliver significant incremental benefit, especially when combined with mobile front end applications and analytics engines. The combination can promote better decision-making. And models from the private sector are working their way into the assumptions of related public professions. Telecoms and energy & utilities companies increase field engineers' productivity by giving them field force enablement. This helps them manage caseloads and scheduling, allows them to order parts and equipment in real-time, and lets them use social collaboration to increase success rates. Public bodies with highly mobile staff like case workers, regulatory inspectors and police officers are developing similar approaches.

The people who are the catalyst for change are joining the public sector in increasing numbers. Digital disrupters from the private sector are taking up key C-level roles and can foster new approaches. To accelerate this mobile transformation Government needs to work with innovation partners who can deliver new services in new ways. Suppliers need to be able to work more in an ecosystem of cross-collaboration rather than in a tower model where each supplier delivers in a silo. Associated challenges around cross departmental and agency collaboration, shared budgets and new commercial models more akin to 'Pay As You Go' are starting to be addressed. As this momentum gathers pace, the public sector can embrace and foster a culture which emphasises the values of Digital design, user experience and innovation. This will ultimately be transformative for public servants and citizens alike.

An Internet of Very Big Things

—MCA Think Tank Director Paul Connolly on how design and operation of infrastructure can be made more efficient and personalised using technology and data.

Coordinating the MCA's Year of Digital has been a real privilege. The Year has provided great insight into how the consulting industry is at the heart of the UK economy's Digital transformation. MCA firms have been utterly convincing about Digital's benefits.

Yet occasionally, perhaps inevitably, discussions assumed an abstract character. Digital's value can seem virtual, intangible, even elusive. At those moments, I have craved ways to link Digital with economic and growth factors of an inalienably physical and visible character.

So it was an especial pleasure to chair our event *Digital, Infrastructure, Consulting: A Recipe for Innovation and Growth*. This session, which also anticipated our Year of Growth, examined how design and operation of infrastructure could be made more efficient and personalised using technology and data. This terrain couldn't be more innovative – or more concrete. Digitised infrastructure splices together the legacies of British pioneers Tim Berners Lee and Isambard Kingdom Brunel. It concerns the Internet of Very Big Things.

Attended by over 70 delegates, a mix of consultants and client organisations operating throughout the Digital and infrastructure value chains, the session was graciously hosted at the Royal Academy of Engineering, and sponsored by our co-host Atkins, an MCA member firm, active in the advisory, infrastructure and Digital arenas. Atkins' Geoff Kneen, Managing Director, Aerospace, Defence, Security & Technology, and MCA Board member, was joined on the panel by David Tanner, Services Director, Digital Infrastructure Practice, at Mott MacDonald, and David Parkin, Director of Network Strategy, National Grid.

Geoff Kneen suggested that deploying Digital visualisation tools would increase the efficiency and responsiveness of transport infrastructures. Performance data can be captured and analysed to help improve safety throughout assets' entire lifecycles. Real-time Digital information can also be deployed to allow customers to search transport options and commission personally tailored services. Geoff also touched on the immense disruptive and innovative potential of Digital, noting the construction of a 30-storey building in China in 15 days using 3D print technology, and remarking on the possibility that drone technologies might make pilots, especially in military aviation, redundant. Geoff mentioned how US SMEs are hiring Unmanned Aerial Vehicles (UAVs) to fly across major cities to undertake mapping exercises. Amazon claim to be close to the launch of a drone-based delivery service in the US.

David Tanner considered Digital a key enabler in asset design and build, promoting effectiveness and efficiency. However, he suggested that the interaction of new technologies and infrastructure was at once complex and in its

infancy. Existing workplace assumptions often needed to be challenged. Putting Wi-Fi in a nuclear power station, for example, is countercultural. Advisory practices must anticipate developments in how Digital will align and interact with infrastructure, and understand commercial models and incentives. Further, Digital generates massive data sets. David suggested that analysing these for genuinely relevant insights is an emerging and specialised discipline.

David Parkin agreed that Digital's potential safety benefits mattered in his sector. Digitally mapping the gas transmission system promotes safety and helps enhance performance, margins and profitability. He mentioned the company Calm Solutions' approach to asset management. They create a Facebook page for individual assets, providing functionality to search for and track products using an interface people recognise from other parts of their lives. He also agreed that data needs to be relevant to a business – and so do new technologies. These should be rooted in core infrastructure understanding, not randomly developed bolt-ons.

The discussion then turned to the problems of marrying Digital pace with the long-term nature of infrastructure projects. David Tanner agreed that this was challenging, but made easier by the fact that underlying hardware systems were becoming increasingly adaptive to the evolution of applications. Infrastructure, he argued, needed to become technology agnostic. Geoff Kneen suggested that any new Digital frontends should be subject to suitable failure analysis. He also observed that Digital could allow infrastructure assets to be reapplied to new purposes. Buildings, networks, systems and indeed organisations, should be viewed as platforms, and Digital exploited to diversify their use.

David Parkin reframed the 'tempo' challenge. He noted that the longevity of various assets permits them to be digitised, since they were unlikely to go out of use soon. Digital capabilities by contrast are rapidly obsolete. So the onus of adaptation was on Digital, not infrastructural, systems.

Audience members commented that effective infrastructure requires human features and skills, such as the slack and reactive capacity of redundancy, to cope with failures. They also noted that there should be a clear focus on the outcomes expected from combining infrastructure and technology. This would help avoid investment in rapidly obsolescent capabilities and approaches. It might also prevent Digital projects generating unforeseen, unplanned or unanticipated costs in process redesign to cope with their introduction. Other audience members challenged the notion that futureproofing based on professional and industry 'business as usual' judgements was even possible, given the pace of change, exemplified by the speed with which Uber had disrupted assumptions around transport.

Geoff Kneen argued that data can expedite the delivery and improve the operability of new constructions. He cited the introduction of a diagonal crossing at Oxford Circus. Digital could be used to shorten the planning cycle of such projects, through predictive models which allow one to observe how the signal, pedestrian and traffic flow patterns work in practice. It can also be used to improve the efficiency of existing spaces and assets. The European Railway Traffic Management System (ERTMS) is a high-profile example of a technological innovation that could increase efficiency of an existing network, potentially by up to 30%.

David Tanner introduced the issue of service personalisation. Data disclosure is often a condition of personalisation. So conflicts between service-tailoring on the one hand and privacy and security on the other might arise. Audience members observed that attitudes here have a generational dimension, with younger people more relaxed about higher levels of self-disclosure (a refrain which has been a prominent feature of the Year of Digital). David Parkin noted that personalisation was most prominent in his world in SMART metering. Evidence suggests that when consumers have access to data about their energy usage, they will reduce it. This can have a beneficial impact on the management of infrastructure, by reducing the need for new energy generation capacity.

Panellists agreed that a major challenge for Digital and infrastructure is skills. Both technological and construction skills are scarce. Even more scarce are individuals who combine both skill sets. Panellists suggested that new capabilities fusing Digital and infrastructure would evolve in coming years. Meanwhile, consulting teams have a vital role in bringing together the different combinations needed to make projects work, ensuring that infrastructures benefit from Digital insights. While all panellists agreed that core infrastructure skills would always be important, architects, engineers and asset operators needed to be open-minded. More comprehensive and better analysed data sets could allow them to understand even the fundamentals of their business better. This openness needs to extend to selecting Digital partners.

Finally, the panel turned to growth. Consumers are empowered by Digital. But does that make Digital a driver of growth per se? Geoff Kneen suggested that for every job lost through Digital, 1.7 are created. Uber models and the deployment of assets as multi-functional platforms could create saleable value. Better experiences provided for consumers by infrastructure companies should drive usage, enhance brand image and increase profitability. However, some issues need to be worked through. The skills profiles of new jobs, some more specialised, others more generalist, will create patterns of employment which are not yet necessarily understood. Further, in energy usage, the tension between carbon reduction – an area of regulatory interest where Digital can be of significant use – and business profitability is not an easy one to resolve.

Overall, though, the panellists took the macro view: Digital would permit the more effective management of existing assets and more efficient construction and operation of new ones. This could only be good for economic wellbeing and growth.

As well as asking direct questions, the audience were engaged throughout the debate through the use of sli.do, an online participation resource. We also used it to conduct audience polls on a number of issues. Asked which was more important for growth, transport or Broadband infrastructure, 56% supported transport infrastructure, 44% Broadband. 66% suggested that Digital was more useful when combined with existing assets compared with 34% who saw its primary value in new build. And while 60% of the audience did not anticipate driverless cars on the road by 2020, 40% did.

This fascinating discussion provided a suitable climax to the Year of Digital. We will return to the topic repeatedly throughout the Year of Growth.

Pioneering Digital Consulting

—Royston Seaward, Head of Propositions for Deloitte Digital UK, talks about how Deloitte Digital emerged and its prospects for the future.

Deloitte were pioneers in Digital consulting. Deloitte Digital is one of 3 MCA firms in the top 10 of the respected Econsultancy list of leading Digital advisers. Royston Seaward, Head of Propositions for Deloitte Digital UK, talked to MCA Think Tank Director Paul Connolly about how Deloitte Digital emerged and its prospects for the future.

When did Deloitte really get going on Digital?

We started to notice a change in client demands in the early part of the decade. It wasn't something they were calling Digital at that stage. But they wanted to improve their contact with customers and the experience those customers were offered. And there was a fair degree of restlessness. The explosive evolution of Digital devices was driving something that intensified as the economy returned to growth. Businesses felt that with increasingly networked and demanding consumers, they needed to improve their channels. But they also had to grow and diversify just to survive.

So, what they wanted had a technology element, for sure, but delivered in an agency style, rather than as part of a big long-term SI relationship. It also required a fair amount of strategy and change consulting. So we came up with the idea of Deloitte Digital in 2011 and launched it in 2012. Since then it's expanded from 104 to 480 consultants, mostly through organic growth, with only around 30 people coming through acquisition. Increasingly, though we have separate, but linked branding, we're seen as an integral, not a bolt-on part of the Deloitte business.

You say you're 'increasingly' seen as central to Deloitte. When you first launched, did the wider business get it?

Deloitte's a big organisation, committed to providing client satisfaction and being profitable. So innovations always get scrutinised closely. Of course, people got it to varying degrees, but in truth we were well supported. In fact, what gave us an advantage was that we were determined to wash our face, winning revenues first before investing in the new offer. The partnership structure means that lots of intelligent and impressive people get to have their say. But the flipside is that provided you are able to bear the commercial risk, you are allowed to innovate. So when six of us decided that we were going to go for it, we were given the space to do so – provided we owned the consequences. The results speak for themselves. We grew rapidly – and were more profitable than many other parts of consulting.

Our new Deloitte MD is very supportive. We're a major and respected part of the business. Everyone at Deloitte gets how important Digital is. And we are making a difference culturally. In the past Deloitte Digital might have been seen as outriders on things like dress. Now there's now convergence. We're meeting in our office, which is certainly a bit different from a traditional Big 4 working environment, more agency feel, airier, more free-flowing, with people in jeans and T-shirts. But many of my people are in suits for client meetings. And when I went to the consulting business leaders meeting in Deloitte a few nights ago, many of the partners were in casual dress. The look and feel of corporate Britain is changing and at Deloitte this is a journey we are deep into.

You were early adopters of Digital as a market and organisational challenge. Now there are quite a few models for Digital practices in consulting firms. If you could go back in time is there anything you would do differently?

I might make a case for earlier investment in premises and kit. But the overall model was right. Deloitte retained a very significant IT advisory presence throughout the whole of the last decade. This included pioneering work in the design and build of websites and other ecommerce channels. So we were able to organise in this way pretty readily.

What are the challenges of developing an effective Digital offering for a consulting practice?

Digital is new and evolving. It's not just technology. And it isn't just change management. So one of the first challenges is getting the right blend of skills involved. Pulling together multi-functional teams. To some degree, that was initially reasonably straightforward with technology. Digital was seen as being at the top of the technical advisory pyramid, providing the applications, networks, analytics, social media models which are in turn supported by technological platforms. But now we're providing a Digital stripe for strategy offerings. In fact much of the Digital challenge is essentially strategic: coping with new customer expectations, testing new products and channels, managing increasingly disintermediated value and supply chains. So a skills blend of consultants who understand business strategy and those who get Digital is critical. And it's essential that they understand each other.

You say the challenge is evolving. In what ways?

Part of it is about new markets. Much of the urgency around mobile or social media has been in retail and other classic B2C contexts. Increasingly we're seeing the next set of Digital challenges emerging in B2B, especially around social media. Some of the most prominent disruptors also have their eyes on B2B markets. Airbnb is already in the business market. What happens when Uber gets going in business transportation? All these changes will mean we'll have to bring together different mixes of sector and Digital expertise.

And part of it is about Digital going deeper. I mentioned Digital being at the top of the technical advisory pyramid. Yet increasingly firms that have modernised their customer channels also have to improve their technical architecture, their supply chains, and digitise their processes. Mobile technologies can improve employee efficiency and the quality of their working environment. Indeed people of all ages – not just Digital natives – now bring assumptions from their increasingly digitised recreational lives into their workplaces. So firms are going to have to overhaul their ways of working and collaborating to the same extent that they have transformed their customer-facing front ends. This will mean new relationships between our Digital practice and the technology practice, with the boundaries shifting again. Digital is reaching further down the pyramid.

However, the unifying factor in this deeper digitisation will still be the customer. Even internal digitisation will need to feed through into a better experience for customers. This is already leading to some interesting incentive models. Branches of high street retailers are being rewarded for online sales to addresses in nearby postcodes, acknowledging the degree to which they act as physical showrooms for online purchases.

When we began the Year of Digital, some predicted that term 'Digital' itself would not last the Year. If anything it appears to have become more commonplace. Is that because of the deepening you describe?

It's partly that. But it's clear we're in an era of Digital domination and disruption. Companies that are steeped in Digital, like Uber, are the fast growing brands. They're not fettered by preconceptions predating Digital. So they are defining the market. The challenge for big brands is to reinvent themselves. And that's not easy. Kodak produced Digital cameras. But no one uses Digital cameras anymore. So Digital can destroy Digital.

Who is doing the reinvention well? Lego?

They're often mentioned, though to some degree they have a loyal, almost cult following. Some other CPGs have done well by creating online communities around their brands. Nespresso for instance. Unilever have also set up dynamic interactions with their customer base.

Our client John Lewis have managed the transition to Digital really well. The ease of click and collect, the ability to return unwanted goods purchased online to a local Waitrose, with all the logistical and supply chain challenges that entails: they've committed to these models. It's not so much that they've changed their brand values. Rather they've recast a strong brand, noted for having customer service and quality at its heart, for the Digital Age.

You said about nine months ago at an event on best practice in buying consulting that clients would ask you to help them 'go Digital'. Is that still happening?

To a lesser extent now. They're starting to get it. And more often clients want assistance with a product or channel and how to launch it. This can provide a route into wider discussions on the relationship between Digital and their wider business strategy.

Interestingly, some of the first generation technology vendors are asking for help. Providers of disc-based, shrink-wrapped software may have real challenges in moving to Cloud-based subscription models. This may have nothing to do with technology, where they probably know their onions. Rather it's about transitioning from a world of largely invisible consumers to a network of interactive and potentially critical ones. Retaining loyalty is challenging in that context.

You've mentioned skills challenges in consulting. How far are the Digital skillsets really changing how consulting is done?

It depends on what you mean by Digital skills. Much consulting historically has been about working with clients using proprietary methodologies. Now what we are seeing increasingly is the application of design thinking, a product of the Digital Age, to business problems. We're also witnessing the need not just to deploy new skills, but to investigate the potential of new technologies. We devote a lot of resources to testing innovations like virtual reality or 3D printing, to see how they can benefit clients and also have relevance to the 'business' of consulting.

Consultancies across the MCA are suggesting that they're doing more R&D because of Digital and developing 'point of view' approaches. That seems to fit with what you're saying.

Definitely. Productivity and profitability in consulting in the future will depend to a great extent on disintermediating some consulting activities, including some aspects of analytics, or creating high-value propositions based on real Digital insights. Both will require investment in R&D.

So should Digital also help transform the buying process for consulting?

Of course. Look, if you're overhauling the mobile presence of a retailer, giving a manufacturer greater understanding of their customers than they've ever had before through data analytics, helping a B2B firm exploit social media, or improving a traditional business's bottom line through end to end Digital transformation, that's real value. Something like a 0.5% share of the business benefit, not time and materials, is what we should be looking for. And with incentives like that in place, we as an industry would strive to become even more daring and cutting edge than we are.

What trends is your R&D telling you we can look out for in the future?

We're interested in the potential of sensor technologies and the Internet of Things. A lot has been made about possible applications here in relation to cars, heating systems and we're involved in all that. But more predictive and smart automation will also be a benefit in other areas. Sensors in a drinks vending machine could combine data about current consumption rates with information about weather (imminent heatwaves, for example) to predict when the machine will need to be replenished. We're also interested in new Digital mixes. We've been examining ways to create a personally tailored shopping experience that combines Facebook profiles with virtual reality.

How do you see models of that sort playing out in the context of increasing popular and regulatory interest in data ownership?

Who knows? We've been exploring lots of scenarios here, including trusted third party models, where people provide data to partners who look to secure them best value and good deals. But it's not clear how this will debate will develop culturally – or generationally. Many young people are relaxed about high levels of information disclosure. The key for businesses will be to provide fair value for the data they get from customers. If they do, many people won't have a problem with that.

Digital and Brands

—Richard Robinson, Managing Partner at Oystercatchers, discusses harnessing Digital to liberate brands and businesses to create new orders of value for customers.

Richard Robinson says Oystercatchers' conversations with Chief Executives increasingly focus on the importance of transforming their marketing functions, specifically through integration of Digital and new technologies, as a route to growth.

 "Around 2014, many firms recognised that they were in that uncomfortable midpoint position on Digital transformation." CEOs realised they had pre-Digital legacy systems led by the same people who put those systems in place. "As Digital has advanced, there's been a tendency to create parallel systems, keeping Digital on the outside." Richard believes that ultimately this approach will fail to deliver the necessary change and will simply serve to perpetuate the situation where traditional business can be easily usurped and overtaken by new-wave companies with Digital at their core.

"Business needs to work out how to extract the parallel thinking and match new enterprises that have hired Digital natives and embraced Digital systems to create fresh ways of thinking unencumbered by outmoded capabilities. Successful businesses have the innovation, intelligence and product to catch up with, overtake, and exceed the expectations of their customers. Uber, Airbnb and Netflix are strong examples with Digital at the epicentre of everything they do and have already won."

Growth, in Richard's view, is about embracing and harnessing Digital to liberate brands and businesses to create new orders of value for customers. "Lego are still famous for making toy bricks. But their whole brand proposition has expanded to keep pace with their customers, young and old, and they now have a seamless product on and offline. They have created a Digital Lego space that is as much loved as the traditional offline brick. This relates to and ultimately reinvents the Lego brand image, so that when we think of Lego now, we think as much of brilliant animation, film, games or music as we do buckets of bricks."

For Oystercatchers, success comes from brave CEOs and CMOs taking the bold and necessary step to reinvent their existing, legacy-driven business models.

"Change has happened. Past tense. The first step as a CEO is to recognise that yesterday's science fiction is today's normalcy."

Some of this is about new modes of operating, like cognitive outsourcing and programmatic media sales (automated marketing based on social media patterns), to enable staff to be free to innovate.

"The willingness to innovate across traditionally non-Digital business sectors is uneven. Fast-moving consumer goods companies are at the sharp end, and have been delivering real innovations for some time. Yet much more could be done. Big banks for instance need to be thinking about what Digitally savvy 10-15 year olds will want from them in a few years' time in order to engineer the next First Direct style transformations. Kids won't want change in their pockets. They'll want to pay with a Smartphone. Niche players such as Osper are already out-manoeuvring banks with a striking model whereby they have eliminated pocket money as we know it. The response from kids is that they love it!"

Oystercatchers' mix of growth-supporting activities equally spans helping businesses getting ready for growth and helping businesses who need new propositions and models. "Some assignments deal with new business phenomena, trends and customer needs. We're increasingly seeing marketing overlapping with Big Data and businesses using their data and information to build new orders of value. Procter & Gamble's Golden Households (an online community offering advice, tips and help) operates through a value-exchange that allows members to receive offers and coupons in return for greater loyalty and interaction."

Richard sees only one major challenge for Oystercatchers. "The challenge we all face is finding and hiring the best talent with the right skills. Our ideal person is quasi-creative consultant, quasitech evangelist and quasi-strategic leader who can effortlessly speak the language of the Boardroom. Few people have all this eclectic mix of skills and we have to work hard to proactively identify, select and hire the consultants of tomorrow today."

Digital Inclusion – Striking the balance between innovative services and physical support

—Stuart Robinson, Senior Manager at EY, discusses engagement with public sector Digital services

I went ten pin bowling with my son the other day. Left to our own devices, I like to think it would have been a pretty one-sided affair, despite the significant practice he had put in on our games console! But conceptually easy though bowling is to grasp, several factors make physically playing the game a tricky and unappealing prospect for a 6 year old. Fortunately, help was at hand in the form of a bowling ramp and side-guards on the gutters. With the playing field levelled he could fully join in and the bowling trip was a great success.

What has any of this got to do with public sector Digital service provision? The answer is that for some users incentives and support are essential. Equivalents of the ramp and guards need to be put in place for those less able to use Digital services. Otherwise they won't be able to participate, or will lose interest in trying.

As our lives are increasingly dominated by the internet, individuals unable to interact with and use substantially digitised services are becoming excluded from society. Just as my son needed assistance to bowl, so an inclusive approach should be baked into Digital services to enable everyone to use them. Without it, services will fail to reach those who may need them most.

The Digital Hype Cycle

A generally accepted theory about the rise of Digital is that it has made consumers and citizens more sophisticated. Quick to embrace 21st century technology, their expectations are higher. They want a personalised experience. Digital enables fluid and dynamic interactions. Since everyone has more information at their fingertips, customer desires and needs are increasingly complex. Failure to respond to this in the commercial world can lead to organisations ceasing to be relevant and competitive. Constellation Research suggests 52% of the Fortune 500 companies of the year 2000 have since gone bankrupt, been acquired or ceased to exist in large part due to Digital disruption.

The attraction of Digital government is undeniable - more efficient and targeted services could be delivered at substantially lower cost. Government has an opportunity to reinvent its engagement with citizens significantly, whilst simultaneously reducing spend. But unlike the private sector, government is not always able to select its

target demographic. Nor, in many cases, can citizens choose whether to interact with government. Public sector Digital services must be universally accessible. Yet there is a real and persistent Digital divide threatening to prevent this. How then should services cater for those that can't (or worse won't) engage?

If we build it, will they come?

Digital services, according to the Government Digital Strategy, should be so good that people will want to use them. But we are not a universally Digitally-savvy nation.

Simply assuming that people can and will engage – 'build it and they will come' – is unsafe. Some will, but not all. At best, transactional Digital services take up in the private sector runs to around 80%, with industries such as in online banking and retail leading the way. Across the public sector the figure is nearer 65% on average, but this is skewed by basic information services. For transactions, the figure is much closer to 45%. In all cases, these services may miss an addressable market.

Digital services that are 'familiar', with analogue equivalents such as shopping, banking, and booking tickets online, tend to have the strongest take up. Public service interactions often do not have this familiarity. They require publicity and signposting. Some public services have Digital channels with comparatively high take-up levels. But even these have significant proportions of non-users among their target populations. And analysis suggests that even in the case of citizens who access services digitally, the quality of their service experience often depends on complementary non-Digital interactions.

Indeed, Digital propensity – whether citizens want to engage online – can be even more significant than familiarity. Of course, that propensity will be nil in the case of those who cannot access Digital – often, paradoxically, those who would benefit most from Digital services. Yet even those who can use technology may be disinclined to interact digitally with the state.

Hence, Digital access problems are not transitory. They will need to be dealt with fundamentally, through targeted and complementary support. 'Digital by Default' cannot mean 'Digital only'.

The Four Horsemen of Digital Exclusion

There are four inhibitors to Digital engagement. These four 'horsemen' are not apocalyptic. But each adversely impacts public service Digital provision.

- Access. According to the ONS, 18% of the UK adult population are still unable to access the internet. Although that number is falling gradually, this is driven by more than broadband availability. A hard core, often distinguished by factors such as age or socio-economic need, remains difficult to reach.
- Capacity. Some users will not access Digital channels for reasons of education or aptitude. Even some of those who could may still need support to engage fully, owing to disability or other vulnerabilities
- Skills. Many who would have little problem filling in a form online may find video conferencing or confidently using the latest apps more challenging than a Digital 'insider' would.
- Motivation. Without the right incentives, citizens may not interact digitally with the frequency process designers expect. Understanding end-users' service journeys and assessing where Digital would enhance their experience – and where it would prove alienating – are key to driving take up. Cultural and generational factors are particularly important here.

Poorly designed Digital services, which fail to anticipate problematic customer experiences, can generate additional costs and poor headlines rather than business benefits. Many will require afterthought bolt-on solutions even to accommodate the digitally able. For the digitally excluded, access problems can be fundamental and complex to overcome. Solutions for them are rarely easily achieved after the event.

The NAO's recent Central Government Staff Costs report suggests that savings anticipated in the UK Government's Digital transformation programmes may not be sustainable over the longer term. This may be due to the failure to factor all the desires and needs of potential users into design and to anticipate fully the challenges of reaching the excluded. A seemingly cheaper service which fails isn't really a cheaper service at all. Government's reputation suffers. More importantly the citizens for whom the services have been designed in the first place suffer too.

The right approach – Digital inclusion and assistance by default

Public sector organisations must proactively 'catch' all citizens in scope of their new services, and 'nudge' as many as possible into Digital channels where appropriate. This requires a multi-dimensional approach to identify, predict, measure and manage likely demand, and reach potentially excluded users. Indeed, Digital services should be designed with these users in mind from the outset. Digital inclusion (for those that could probably engage online with a little support) or assisted Digital (for those who can't or won't), both require realistic mechanisms for consistent citizen access that encourage take up.

Building deep knowledge of all the users Digital services are intended for, and understanding the factors influencing their behaviour, can promote robust design, ensure accurate modelling of business case assumptions, and help track service take up. Customer segmentation can embed users' differing and evolving requirements and access challenges in the Digital service design, helping determine the additional support needed in those instances where Digital does not provide the complete solution. Importantly, the framework this provides will enable services to 'learn' more about their users, and flex and adapt as user needs change. Adopting these approaches in the planning phase and throughout the life of a Digital channel will maximise uptake, build citizen trust through a superior customer experience, and ensure that those who need more specialised support receive it.

Successful approaches to inclusive and assisted Digital are service-specific. Some will need to retain mail, call-centre and face-to-face elements, or may require proxies (family and friends, or even dedicated professionals) to support vulnerable users. These components must be integrated with the Digital offering at the outset to maintain a coherent customer experience. And the now old, but little acted-on commonplace of public service reform bears repeating. People's life-experiences do not map to the boundaries of government departments. Digital initiatives are more likely to succeed if they are fashioned around how people actually live. To provide joined up, simplified and responsive services for the critical events, needs and challenges citizens face almost invariably necessitates multi-agency approaches.

Empowering citizens to help themselves, through straightforward and well-signposted services, reduces the need for unnecessary and costly intermediation. But some will still need additional 'ramps and side-guards' to be able to play. These will range from early interventions, such as better Digital education, to access support, including complementary, well planned, non-Digital processes. Inclusion measures should underpin and be built into the costings of all Digital initiatives. Otherwise services will fail and predicted economies will not materialise. Striking the right balance between Digital service provision and mediated support is key to enabling government to deliver on the Digital agenda.

Open data

Charlie Boundy, of BAE Systems Applied Intelligence, discusses the potential of the UK government's Open Data programme.

What is the government's Open Data programme?

It is very much about transparency and economic growth. Government data is a tremendous asset for the UK. Making it public and being transparent about where the government spends its money and explaining what value is derived for that money is a real opportunity for the citizen. Citizens can challenge government and make it more accountable. At the same time the data is an asset for entrepreneurs and researchers. The programme has been going now since 2007. Successive administrations have improved on it and embraced it more. The Coalition announced its intention to create a National Information Infrastructure. I think we're now at a stage where transparency has been significantly addressed. But now the economic growth imperative needs that data to be better and more usable, and that's one of things we need to improve going forward.

How are BAe Systems Applied Intelligence involved in the project?

About 18 months ago, I took it upon myself in my role as Head of Data Consulting to join the Open Data User Group. That's a ministerial advisory panel which is advising the Cabinet Office and other departments on how best to expose or publish their data. BAe Systems have a rich heritage around cyber security, my area of data analytics, and also a focus on user-centred design. This last point spans departmental boundaries. So our interest is in data that is usable, not just published for the sake of being published, and that citizens can get value from it.

What sort of success has the programme had to date?

Quite a lot. The UK already tops the international rankings for open data (measured around election results, public spending, right down to transport timetables). The data.gov.uk site is somewhere you can already see 15 000 data sets that departments and public bodies have published. That has helped organisations and business start ups to create apps which the public can use. BAe Systems have helped Transport for London publish their data through APIs. People can now start to look at information from that catalogue and start generating applications off those things. So significant progress has been made. This is a very rich landscape of information. The next stage, using the National Information Infrastructure, is to make the information more real-time, accessible and usable for those applications.

How does open data actually improve the services people receive?

I am very passionate about this, because although this could all sound very technical, actually very hot, front-page news topics can be addressed through open data. Take for example continuity in the event of floods. During major floods, lots of services have to react to challenges. In recent cases they have been criticised for their response. Now they can learn from the data generated then and use real-time public information in a more supple way going forward. Or consider public health. How well do we know our localities? Where there has been an outbreak of disease, we can put together various local data, whether relating to service responses, how people have reacted, to geographical locations or weather, and can provide a useful picture for what is happening now or for future improvements. Now those examples will require a degree of analytics and research. But if you consider areas where the citizen is involved, these will be where they have much clearer information about what is going on in their communities. How well are they served? What is the quality of service there? If they knew their services were poorly performing in law enforcement or health or even in fixing street lighting, they would be able to challenge that poor performance.

Are there other examples of open data transferring power from the state to the citizen?

This is very much about participation and engagement. It is about making sure that if we democratise the data that the tax payer has paid for that he or she is able to challenge and use it. They should be able to understand what good looks like in their community. They should be able to see what the beats are for street lighting, for pothole repair, and see if someone has already complained about a problem they have identified, so as to be able

to judge whether to raise a query themselves. They can ensure that the quality of service that they are paying for is what they get and expect. The benefit for central and local government should be that there is a lot less time spent reacting to FOI requests or multiple complaints.

How does open data relate to the issue of data ownership?

Organisations understand now that data is an asset. Although it has never appeared on a balance sheet before, it isn't just something for running your organisation. It is something that has a lot of value – and a lot of personal attachment to it if it is personal identifiable data or data that is relevant to national security. We in the National Information Infrastructure are pushing to exclude personal and national security information and to look at non-sensitive asset information that is just about society, about organisations, buildings, locations, what in the old days would have been called matters of public record, but in a form that people can really use. And if this stuff is publicly available, then the hard licensing questions about whether the data is really owned by anyone will start to become a more mature conversation, certainly as people start to use that information.

Future growth in Digital Consulting

—Carlo Gagliardi, Partner at PwC, identifies future growth sectors in Digital consulting.

Carlo argues that "More businesses now understand that they need more than just a Digital strategy. They need a business strategy for the Digital Age." He notes that developments in this area, which have predominately consisted of customer-facing channel shifts, have been especially acute in financial services and in retail. "But there's more to do. Financial services such as banks know who their customers are. Some retailers have subscription models or loyalty cards, and so they deal with faced and named customers rather than faceless and nameless consumers. But some players, especially some of the new discounters, don't know their customer at all. Now, a third group of players is emerging, seeking to market themselves to wider audiences through social media. This is changing branding, marketing, customer service, and, of course, PR, profoundly."

Carlo identifies other growth sectors for PwC in Digital, such as local government and wealth management. "Another interesting area has been higher education. The next generation of students is very Digitally aware. Attracting and retaining them requires Digital dexterity. Digital is also breaking down the relationship between knowledge and power. Historically, academics held that knowledge and so had the power. Now access to information is more fluid. Some institutions are recognising this. For example MIT puts all of its lectures on the internet." Carlo says that Digital provides the basis for whole lifecycle relationships to be developed between universities, applicants, students and alumni.

In the future, Carlo believes we will see wider and deeper digitisation. "Beyond front-end, customer-facing activities, there are other threats and opportunities deeper in the value chain. We have seen the emergence of Chief Digital Officers. These have been welcome cheerleaders for Digital change. But will they last?" Carlo also believes that the need for cultural change is linked to the basic definition of what Digital is and what it provides. "In a business, IT used to be about getting inflexible systems working at capacity – often at great cost. Marketeers wanted things to move faster than IT people could supply. Now Digital capabilities are providing some agility, through apps and more interactive and automated customer channels. But Digital should be providing agility across the whole enterprise, in terms of skills, data, process and innovation." Carlo argues that Return on Agility beats Return on Crystal Balls since predicting the future is trickier than ever. "Agility across the enterprise in both internal systems and customer-facing channels should get marketeers and IT departments what they both want."

Digital's potential lies in its ability to integrate disparate value and to unpack monolithic value. "Take the Uber business model. It can be described in two ways. It could be used to link up disparate systems. At the moment, there is no integrated transport system really. Just road, rail, sea and air. Yet a Digital offering that looked at the quickest way to get from A to B would bring transport elements together in ways that add value to consumers. By contrast, identifying a small amount of unused freight space in a lorry fleet is challenging. But Digital makes it possible, allowing hauliers to improve margins by selling unused space and traders with limited or tactical logistical needs to secure good deals."

The key is data. "Chief Digital Officers of today may morph into the Chief Data Officers of tomorrow, as enterprises realise how central data is to value creation." Carlo sidesteps controversies surrounding data ownership, but says consumer demands will create new business models anyway. "Some transactional data will remain inalienably the property of the company. But consumers will want to extract more value from data about them – and claim ownership of some of it. Customers usually get what they want. So new businesses will emerge to let them. A holiday booking aggregator could spot patterns in a customer's purchase habits and collaborate with them to get the best offers, in exchange for additional information, which remains the customer's in the long-term – such as their plans for the summer. Another firm could use data from people's weekly shopping patterns to secure them the best deals – from all supermarkets, not just one. Digital budgeting and concierge services of this sort could become viable if they can win the customer's trust to disclose more personal data. One way to do this might be to give the customer an 'erase button' for the data the customer truly owns. This would win more customers and may minimise the odds that the button is actually used."

"The trick however will be to monetise these new business models …"

Data Ownership

—Paul Connolly, MCA Think Tank Director, takes a look at the data ownership debate.

A contentious topic that has emerged over the course of the Year of Digital is data ownership. Who should own data about us? Should we own it? Is there a difference between public sector and private sector data? What safeguards should be in place to protect us from misuse?

Fears about how government uses personal information were dramatized in the UK during the debate on identity cards. Scandals surrounding the NSA and the Snowden revelations have intensified those concerns globally. Even at a very prosaic level, tensions are ongoing between the protection of individual privacy and government's ability to join up its data in order to provide a tailored and personalised service to individuals.

To some degree, the debate, up to now, has been rather less sharp around private sector data. You can opt out of a retail brand. You can't opt out of the state. Yet for some contributors to our Digital Year, businesses' use of data is bandit country. Whereas the laws governing property in advanced economies have hundreds of years of legal precedent behind them, the situation on data is much less clear. Critics of the status quo suggest that big corporations in particular exploit information asymmetry to secure 'permissions' from consumers to hold data – email address, home address, mobile number, age, buying preferences. This information becomes a valuable commodity, saleable by business, for a return the consumer never sees. Critics argue that this value should belong to the individual. Citizens should make their own data work for them.

Others just don't really care. This is not precisely a generational thing. But there is a degree to which the data debate links to the issue of privacy. And here there seems little doubt that younger people tend to use social media to disclose more information about themselves than their forebears. This is not to say that there aren't older people with a devil-may-care attitude on Instagram – or young people who share the concerns about data usage and the power it gives to corporations expressed in Dave Eggers book *The Circle*. But it is telling that at Young MCA events, audiences tended to split roughly half and half between those who wanted to own all their data and those who shrugged their shoulders.

The degree to which this is emerging and unpoliced terrain is noticeable from the different reactions people have to the use of social media information by business. If someone were to tweet about Japanese knotweed in their garden, but fail to mention it in their legal declarations when selling their house, it might be used against them. And given the visibility of tweets and the emerging body of case law, they would probably have limited defence. But what about using someone's profile of Facebook friends to help determine credit ratings or suitability for a job?

Some people are horrified at the suggestion. Yet when I raised these issues in discussions with one Digital enthusiast, he was unsympathetic. "If I leave my curtains open at home," he suggested, "then I can't complain if people see me dancing naked in my living room. And if I leave my front door open, people are going to take my things." Well, right on the first count: close those curtains! But even if I'm dumb enough to leave my door open, the person who takes my stuff is still a thief.

For some people, however, these analogies are completely irrelevant. They consider the issue with data in the public sector as similar to the situation with CCTV. Only wrongdoers need worry. And with regard to private

sector data, businesses do take the trouble to gather and organise it. If customers then get value from it, then why should they care about the niceties of ownership?

What unites the perspectives of those who are critical of the status quo and those who are laid back about it is the notion that data has a value. For the critics, citizens are not necessarily seeing that value. For the more relaxed, it's simply a question of retailers providing it – and if they don't, people will stop using them.

However, what is obvious from both perspectives is that discussions about the relationship of data and value are in their infancy. Under normal conditions, an individual has a reasonable prospect of understanding what goods and services they will receive for the money they have. The transaction value of data is less easily calculated.

A shift in the dynamics of data ownership could be quite revolutionary. In the public sector, if citizens owned their own data, they could use the information to require the state to fulfil its responsibilities to them in a bespoke fashion. Services would be tailored to match the specific entitlements and need captured in an individual's data. Citizens in turn would be responsible for exercising their prerogatives and making appropriate demands. This would shift power to citizens and make the dynamics of choice very real. In the private sector, consumers would exploit their data to seek the best deals from suppliers, either directly or through favoured third parties.

On the surface, what is needed to achieve these sorts of models is legislation and regulation. Yet what unites both sides of this debate is their scepticism about government's ability to handle this complex issue with the necessary subtlety. The Digital Economy Act 2010 was out of date before it hit the statute book.

What government can do is foster a debate on these issues. Engaging with business, consumer groups and Digital experts, it can stimulate discussion and public consciousness. This would at the very least address some of the information asymmetries, between business, government and the general public, and more particularly between the Digitally savvy, quite able to look after themselves, and the wider public. If those who are relaxed about data usage are right, then the debate will reveal that citizens already feel empowered, and are quite comfortable that their own demands for value keep businesses on their toes. If however citizens are frustrated by the status quo, then the debate will have been very beneficial. Businesses and departments of state may adjust their behaviours in order to avoid the necessity of regulation. In the commercial context, new business models to help people secure data value may emerge. And government will consider some regulatory intervention, but only in response to an evident need and as a last resort.

A Digital, better value, government must utilise consultants

—Alan Leaman, Chief Executive of the MCA, gives his opinion on the role of consulting in the public sector

I'm not as pessimistic as many about the role of consulting in the public sector over the next five years. Spending was coming back in the last couple of years of the 2010/15 Parliament following the dramatic falls of 2010 and 2011. This was a healthy sign that ministers and senior managers recognised the value that they can gain from our world-class consulting industry. Many of the best entries to the annual MCA Awards are for projects involving the public sector.

The appointment of Matthew Hancock to the Cabinet Office, where he will lead for the government on civil service and procurement reform, is a shrewd one. He has the full confidence of the chancellor, George Osborne, so we are likely to see a more joined-up and effective relationship between the Cabinet Office and HM Treasury.

The pressure to reduce the fiscal deficit certainly hasn't gone away. At the same time, the pressure from the public to improve the quality and accessibility of services will only grow as well.

Yes, this means that departments will want evidence of value for money and that the business case for engaging consultants will have to be good. We welcome this.

But it also means that, if the government really grasps a reform agenda, there will be plenty of areas where consultancies will be able to make a real difference.

Reform and resources

I hope that the new government will be radical, asking some quite fundamental questions about what government is there to do, how it needs to be organised and what resources it should be able to call upon to get the job done.

And it should now immerse itself in the opportunities of the Digital world. Applied well, Digital can release efficiencies, transform services and get the citizen engaged in ways that none of us can imagine today. It is, for instance, key to the medium-term future of the NHS.

To help get to this point, the MCA is engaging with the Crown Commercial Service - and many others - to try to improve how consulting is bought and, more widely, the relationship between the public sector and the consulting industry. Too often in the past, we have failed to get the best out of each other. By creating a more effective partnership, we can deliver massive benefits for the taxpayer and all our fellow citizens.

Local Government - Rising to the Digital challenge

—Jonathan House, Director PwC, says councils can't afford to ignore the Digital challenge.

Councils aren't short of challenges at the moment, but rising to the Digital challenge is an opportunity they can't afford to ignore, both to make financial savings and to stay relevant in a Digital age.

Digital has already had a significant impact on local government - and the pace of change only looks set to quicken. What was emerging technology not long ago - social, mobile, analytics and cloud - is now everyday, with the next round of innovation always on the horizon. This rapid cycle is having a significant impact on the newer generations of consumers who expect ever-more accessible, portable, flexible and personalised services and experiences. So, how can local authorities respond?
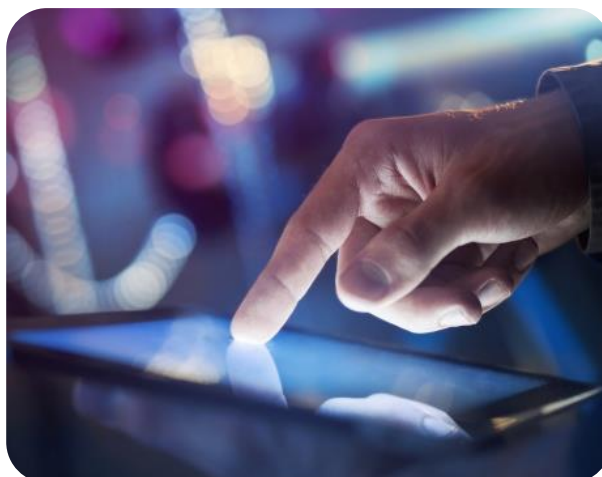
Many councils are already using Digital technology to transform services, moving to self-service and automation where possible. Automated intelligence can provide basic decision-making and online and telephone-based support, with minimal staff intervention, and also deliver welcome efficiency savings for councils who have long exhausted traditional avenues for reductions. PwC's annual local government survey - the Local State We're In - shows that 60 per cent of chief executives and 70 per cent of leaders are confident that their council is fully embracing the opportunity Digital offers. Yet ask the public the same question and only 28 per cent agree.

Part of the issue may be that too many councils, while perhaps reaping the benefits of limited investment in Digital to deliver savings, are not yet embracing Digital in its broader sense. The Digital opportunity for local government extends well beyond shifting transactions and information online and needs to be embedded throughout the organisation. As we put it, councils do not need a Digital strategy; they need a business strategy for a Digital age.

The Management Consultancies Association (MCA) Think Tank report, Local Government: Time for Reinvention, highlights the impact taking advantage of Digital technologies is having at a London borough PwC is working with. By redefining the way the council works and embedding Digital technologies and thinking, the authority has been able to reduce its operating costs, while also enabling frontline service delivery to be improved through Digital portals enabling self-service, automation of service requests and also community self-support.

Digital is a key enabler for fostering a new relationship between citizen and council, and for fostering relationships between citizens and enabling them to achieve outcomes without the active intervention of the council. Digital approaches, for example community hubs and social listening, can provide customers with greater independence, allowing them to manage their own information and access to services, enabling a more personalised relationship with their council, as well as contributing to savings.

For the council, having an integrated view of service users and assets can provide powerful business intelligence. With tough choices to be made in the years ahead, having that evidence that shows the relationship between inputs, outcomes and impact is essential. Data analytics and business intelligence will be critical for councils as they translate new priorities into smarter interventions, choices and working.

While much of the data that is needed already exists, it is often held in separate departments or separate organisations. Data needs to be integrated across organisations for it to be meaningfully used in order to measure impact and outcomes on a multi-organisational basis across an area. Using data in this way means councils move beyond managing demand via introducing multiple service points towards an outcome-based approach, rooted in prevention and early intervention across a whole place.

Few councils today have the capability they need to translate the data they hold into the insight that is needed to underpin decision making. While half of PwC's survey respondents said they currently use data analytics to underpin their decision making and strategy, only around a third of chief executives agree their council has the capability it needs in this area.

Developing skills and investing in capability in Digital and data analytics must be an urgent requirement for local authorities if they're to fully reap the opportunities that Digital and data offer. Delivering transformation on the scale needed requires strategic vision and leadership to ensure Digital thinking is fully embraced by leadership, the workforce and the community.

But with local government austerity looking set to continue well into the next parliament, alongside rising demand and expectations, the Digital challenge is one every council must rise to

Originally featured on Local Government Executive.

Shifting boundaries

—Matt Candy European Leader and Managing Partner of IBM Interactive Experience looks at how Digital is collapsing boundaries for clients and consultants

Matt Candy argues that "Digital is a fascinating space for consultants to be in. Obviously consulting firms with a background in technology and systems integration have great Digital pedigree. But if Digital is collapsing boundaries for our clients, it's doing so for consultants too. We have many of the capabilities that others advising on Digital, like advertising and marketing firms, need. But just as they need to understand Digital in a strategic sense, so we also need to be able to match the inventiveness of the boutiques and new insurgents in developing new products, like mobile apps."

Matt suggests that IBM are doing this well. "We're using our scale to our advantage, allowing us to invest in Digital capabilities, restructure our offerings and look to do things differently. This entails a lot of reskilling. The changes in our markets, after all, are very substantial. For example initiatives like SWIFT will transform banking.

"But we're also having to address the fact that smaller, new Digital entities can often react to developments faster and adapt themselves more quickly. Consulting is an externally focused business, concentrated (rightly) on client needs. As result, we're all moving towards Digital, as it is plainly top of mind for CEOs. However, this external focus can sometimes mean there's a danger of missing tricks in the transformation of ourselves.

"The creation of specific Digital capabilities in IBM – as well as in other consultancies – minimises that risk." Matt thinks that all businesses working in B2B environments need to follow consulting's lead here. "B2C firms have an immediate Digital challenge driven by customers wanting to access products and experience new ways of consuming them on their smartphones. The Internet of Things is all about this new sort of value. But increasingly B2B businesses are going to have to improve their offers Digitally, for example increasing their social media presence. In the Digital Age the distinction between B2B and B2C is dead."

Matt notes Digital consulting growth in areas such as financial services, retail banking in particular, and in retail. "The utilities are behind the curve and need to catch up. The liberalisation of water may drive some changes." The UK is a very significant market for IBM in Digital advisory, but also Germany, the Nordic countries, and Italy (especially for analytics). However, Matt has also noted slowdowns in Central and Eastern Europe.

"The growth potential of Digital is enormous. But it's easier for new businesses to exploit it. Things like Uber and Nest have a Digital culture. They are Digital throughout. More seasoned businesses need to avoid simply grafting Digital onto their front end and customer-facing elements. This approach can be effective, but only for a limited period. It falls well short of the creation of a Digital culture within a business. When you think of the number of new employees coming into the workplace, bringing Digital expectations from their wider lives, superficial change won't be enough. And when you think of the number of people in work whose skillsets are not yet full Digitally aligned, then both the potential for transformation and the transformation challenge are enormous.

"Indeed the next wave of Digital transformation may be about harnessing and changing the relationship of the employee to the enterprise through Digital." Matt suggests that there are models for traditional businesses to follow in wholesale Digital reinvention. "Lego is the most frequently cited example of an old business that has reinvigorated itself by understanding Digital's new cultural norms without losing sight of – in fact strengthening – its brand differentiators."

New approaches to Digital Transformation

—Glyn Knaresborough, Head of Consulting at CSC, discusses developing a different approach to Digital transformation.

Glyn Knaresborough says CSC has made a step change in its consulting business through a focus on enabling clients to drive their Digital transformations.

"In some ways Digital consulting is a natural evolution for a technology firm," observes Glyn. "But it's very significant in other ways. We've moved away from an infrastructure view and have expanded our advisory offer. This has created a new operating model, carefully focused on key capabilities and industry sectors. Crucially, our offers and advice are not dependent on any particular technology brands.

"The goal is clear: to understand and explain to clients how you drive Digital transformation." To that end, Glyn explains that CSC has engaged in extensive recruitment. "We recruited 100 new people in 2014 and have looked to more than double that in 2015."

Glyn says that CSC's Digital advisory has seen growth across many sectors including manufacturing, healthcare, banking and capital markets, transport and infrastructure. This is a result of developing a different approach to Digital transformation.

"Much of Digital to date has been on the surface – front end stuff, grafting something more acceptable to customers onto imperfect infrastructure. But when you look at the scale of the Digital challenge that some organisations face then this is just superficial and may even make their situation worse, through over- promising and under-delivering.

"Consider investment banking. That market has been used to easy 10–15% margins in the past, and have typically built their business technology platforms on that basis. Yet with competition from commoditised investment applications built on Cloud and 'as a service' platforms, the old model is under significant threat.

"Like so many organisations, they will need to transform right across the enterprise. Digitisation of the back office, where much of the cost is, will be needed, not just at the front end. A major global bank that has 100 000 people in technology and 1000 in application development alone is carrying far too much technology weight and will struggle to make its margins. Lighter, Digital systems throughout the enterprise will assist."

Glyn explains that getting this across to clients is about thought-leadership. "We now engage in point-of-view consulting. We research the predicaments of various markets, seek out examples from things we are doing elsewhere, and set out positions on what needs to happen to transform a particular sector or type of enterprise. We then adapt it for the individual client."

Research and evidenced-based advice of this sort, allied to adaptations for specific clients, is the future of consulting for Glyn. "It can lead to real innovations, such as the patient centred digitisation we're pioneering in Manchester for the NHS Trafford Clinical Commissioning Group. And it can also lead to pragmatic and low cost solutions. Knowing what is going on across sectors helps. If a manufacturer approaches us looking for a payment

system, then knowing that we've supported a bank to build one allows us to broker a deal in which the manufacturer can use it and not have to waste resources reinventing the wheel."

The Digital Revolution has only just begun

—Martin Chalmers, Head of Consulting at BAe Systems Applied Intelligence, on deepening the role of Digital

Martin Chalmers says that BAE Systems has benefited from recent growth in public sector consulting activity.

"We, like many of our competitors, are hiring more people to meet client demands. Getting the right mix of people who have core consulting capabilities, and are also able to think in different, modern and challenging ways, is really important."

Even as the 'purdah' period approached, in the run-up to the 2015 General Election, departments and agencies seemed to want to "get on with things". For BAE Systems Applied Intelligence, this was especially noticeable around the SIAM (service integration and management) model, where they provide an intermediate management and advisory tier between government departments and multiple suppliers, especially in IT.

"The SIAM model has already helped government organisations unlock the benefits of multisourcing, both saving money and transforming service. We are now seeing the model evolve in new ways. To take just one example, for those seeking to improve or insource their management capability, it can offer a staging post with an opportunity for real knowledge and capability transfer."

Martin notes that the creation of the Government Digital Service has produced a greater appetite for Digital solutions across government – with more collaboration starting to happen. "There's more cross- government working, integrated at a process, people, systems, and customer level. There has been a great deal of work done on open data and we've been at the heart of that, helping government to understand the potential for improving services and empowering citizens through making more information openly available. Successful initiatives like TfL's bus app have come about as a result of the open data push.

"Of course, the greater appetite also comes with a greater desire to see real delivery and real financial returns."

The principal risks that Martin sees on the horizon for consulting are those of uncertainty, for example around the Eurozone.

However, he also sees significant opportunities. "The Digital Revolution has only just begun really – in both the public and private sectors. We are doing lots of work in this area on everything from open data to, conversely, data privacy and security.

"Much of the Digital transformation is yet to come. Just think of the potential of the Internet of Things for example. Government and other large organisations are facing constant forces of change. This is unsettling and they are looking for consultants who can guide them in embracing that disruption with confidence. So we are now helping our clients realise the full potential that Digital interaction and data analytics can offer.

"Perhaps most importantly of all, everything about this, from the front office to the back, has to work for people. That's why we're putting human-centred design, alongside data science and Digital security, at the heart of everything we do: to make us – and our clients – more innovative and responsive to the potential of Digital to drive operational cost reduction and transform the lives of customers and citizens."

Pollution? Good or Evil? The two sides of big data

—Jacob Roche, Consultant at Mott Macdonald, summarises the Young MCA Event on Data

The MCA were grateful to EY for hosting the Young MCA on Thursday 14th May for *The Data Debate*. Approximately 100 consultants from across the industry attended the event as part of the MCA's Year of Digital, to hear industry experts' perspectives on data. The session was chaired by Paul Connolly, MCA Think Tank Director.

In a Question Time format, the debate featured two panels.

The first panel discussed *Data: Fuel of the Digital Age*. They considered data as a driver of value and advantage for businesses and consumers and examined the potential for data analytics, when properly targeted, to help businesses understand consumers. Panellists also highlighted data's internal business management and R&D applications, including how CFOs use real-time information to improve the way they allocate business resources.

In healthcare, data analysis relating to illnesses can help in the development of new drugs. It was suggested that many businesses already possessed the answer to major problems or the basis of innovations within their data sets. The challenge was unlocking this data through targeted analytics. One panellist noted that the proliferation of data in the Digital Age was changing the very way in which people understand the world. In response to a question from the floor about the potential for automated analytics to reduce the number of white collar jobs, the panel agreed that certain analytic capabilities would be disintermediated, but that this could free up human capacity for other activities or create new skills challenges.

Ownership of data divided the audience. One member asked, "Are we customers or products of Facebook?" Whilst half of the audience felt that there was a need for government regulation to ensure that citizens own their data, the other half were less worried about the issue. One panellist suggested that the telecommunications industry may be better placed than the government to broker better arrangements between business and citizens on the management of personal information.

Sli.do polling at the end of the session revealed that 59% of consultants were already using data analytics in their engagements and 68% felt that consulting would not be able to survive without it.

The second panel discussed *Data: Pollution of the Digital Age*, focusing particularly on cyber security risks. They distinguished four categories of threat:

- Activists who hack to be noticed and get recognition for their cause
- Criminals who hack for financial rewards
- Espionage, where countries hack for economic or military gains
- Ill-informed employees who misuse data (deemed the most dangerous)

Panellists agreed that it is impossible to achieve 100% protection from hackers, not least as the criminal groups and governments carrying out attacks or exploiting data negligence are extremely well organised. A client company of one panellist had been hacked for 8 and half years without their knowledge. The essential thing was to be cyber resilient, able to manage and withstand an attack.

When asked what the future holds for consultants in cyber security, Mark Brown, Executive Director at EY, noted that EU General Data Protection Regulation, which is expected to come into force late 2017/early 2018 will raise the fines that companies face for negligence in protecting personal data to a maximum of 5% of global turnover, capped at 100 million Euros. This could lead to significantly more investment from firms on their data security, with potential benefits for the consulting industry.

The polls also found that 62% of attendees had been victims of cyber-crime, while 11% believed they had the skills to carry out a cyberattack.

MCA & Grant Thornton Event Digitising the Banks | The Digital future of banking

A personal view, Paul Connolly

Panel: *Ewen Fleming: Grant Thornton Partner & Practice Leader, Financial Services Group; Chris Brindley: Metro Bank, Managing Director - Regional Banking; Darrell King: CSC Associate Partner*
Eric Leenders: British Banking Association Executive Director of Retail & Paul Connolly: MCA Think Tank Director (Chair).

Every revolution provokes a counterrevolution. So it is with Digital, as our exciting but unpredictable concluding MCA Year of Digital event on Digitising the Banks revealed. What was billed as a discussion of banks' Digital reinvention ended up being, at least in part, a defence of traditional virtues and models: understanding the customer and a physical community presence.

Chris Brindley of Metro Bank suggested banks needed to acquire a real understanding of customers' needs. It's not difficult to see where he's coming from. A conservative industry, high street banks thrived for years on a simple reality. People needed somewhere to put their money, an institution to manage payments to them and by them. But since the financial crisis, banks' reputations have suffered. Digital has revolutionised people's expectations of service access and immediacy. And it has also seen the rise of alternatives to banks, certainly on the payments side, such as PayPal.

Yet Chris's answer to this is more bricks than clicks. Metro Bank want to reinvent the high street bank as a genuine community asset. They hold open days, outreach programmes, school visits and host fun and games in their branches – or 'stores' as they call them. Startlingly, when polled, the audience backed Chris's assertion that high-street banking is not finished, by 4 to 1.

I wonder. Metro Bank are to be commended for confronting and reinventing complacent models of provision. Yet as Chris spoke, I was reminded of the Bailey Building and Loan, the Bedford Falls mutual society in Frank Capra's film *It's a Wonderful Life*. Chris argued that customers want to deal with someone they know. Now while I like the idea of having my money managed by James Stewart's saintly George Bailey, in reality I prefer handling my own affairs. Call centre staff who understand my finances less acutely than I do are irritating. But local people who know them intimately aren't what I want either.

And I'm not alone. Notions of community are changing, especially among young people, who may consider Twitter or their Facebook friends more vivid communities than their immediate geography. Today's school children are more adept on the iPad than their parents, learn through gamification, and may get pocket money through an app. Will they want to make mortgage applications, open current accounts, or do anything with money, in person on physical premises?

The management consultants on the platform were unconvinced. While both Ewen Fleming of Grant Thornton and Darrell King of CSC applauded Metro Bank's brio, they suggested that the current model of high street banks leaves them with 5-10 years at best, if they don't reshape their approach to integrating Digital into their operations more effectively. Ewen even called into question the continuing relevance of the current account. As such, they echoed some of the comments at a recent event on Digital and skills. There, one contributor said consultants have a duty to point out to banking clients that the spectacular disintermediation that overtook the music industry could happen to them.

For some, the story of Digital and the banks is one of lateness, slow uptake, missed opportunity and the need to move quickly to catch up. Compared with, say, retail, banking is behind the curve. Two thirds of our audience said their bank's digitisation is sub-optimal.

Eric Leenders of the BBA suggested this stemmed in part from the priority challenges banks faced after 2008 – regulatory compliance, rebuilding balance sheets, managing down liabilities. Some banks still face PPI pay outs that restrict their capacity to focus on Digital and invest. Ewen Fleming highlighted the additional complication of legacy systems. Banks were an early adopter, post-Big Bang, of business technology, especially on the payments and investments side. Not everything has gone well – see sub-prime lending. And accretions of system layers, through M&A or new products, have produced overlaps and complications in customer records. It is challenging to rip all this out while simultaneously being digitally agile and meeting consumers' ease-of-access expectations.

Of course, as Eric Leenders observed, Digital is about more than customers. It can be used to simplify processes and reduce cost. This is not just about payment speeds, which Eric suggested had reached their practical optimum. Cyber security, cross-border syndication of access to capital, and AML measures all need Digital underpinning. Investment banks under threat from portfolio management apps and seeing their margins squeezed need Digital to reduce operational and transaction costs. Eric contrasted the complexity and industrial scale needed to digitise back office functions, with 'front-end' apps that the agile new wave of challenger banks were bringing to market. As our Year of Digital has shown, these are very different types of digitisation, requiring different sorts of people with different skills sets.

Yet audience members, who lamented that John Lewis's online service was far superior to their banks', suggested that back office Digital problems could not be decoupled from front office ones. They suggested that a revolutionary new model of retail banking, what one contributor termed the next 'First Direct moment', would not arrive until banks developed a better culture, an improved balance of trust and risk in dealings with customers and a more open and collaborative approach to data.

These observations resonate. Setting up a small business account, even without an overdraft facility, is tortuous. Policing banks' investment decisions is a legitimate public policy concern after 2008. But there is a case for seeing how far regulatory requirements needlessly conflict with Digital's cultural assumptions of ease and instantaneity. Similarly, tensions between security and openness need be explored. Recently, a colleague of mine received nine letters from their bank legally confirming ten simultaneous transactions. They queried whether the tenth letter had been sent. They were advised it had and would be again for completeness. They then received another ten letters. Only for the original tenth to turn up a few weeks later. Giving them twice as many letters as transactions. Actually they didn't need any. They just needed to know the transactions had been legally acknowledged. An open data approach would have allowed them to see immediately that ten letters had been despatched and to attribute the missing tenth to the vagaries of Royal Mail.

On data, Darrell King of CSC suggested that technologies to support much better interpretation and exploitation of customer data are out there. But it is up to banks to start using them.

This all takes us back to Chris's point. Whether bank reinvention happens on the high street or online, or, as with retail, fluidly combines the two, a thorough understanding of what customers – current and future – want, will be critical. My hunch is that as the proportion of Digital natives among customers rises, so the appetite for financial disintermediation will intensify. Darrell suggested that responding to this will entail avoiding excessive complexity in Digital models, but also educating consumers in how to self-serve. Those who succeed and stave off the threat of 'Google Bank' will be those who use data for transactional and business efficiency and to provide customers value. They will form alliances with other Digital innovators outside financial services to provide a more rounded service.

Will they be on the high street? Despite finding much that was compelling in Chris's argument, I'm not so sure.

The Case for Gamification

—Tobi Ogunsanya, Accenture Strategy, looks at how gamification can add value to businesses.

In 2009, the Department for Work & Pensions (DWP) used gaming techniques to achieve cost savings of £20m. By deploying game mechanics within its innovation management platform, such as enabling employees to receive points for submitting innovative ideas, DWP motivated and empowered 6,000 employees to come up with solutions for various problems. When implemented, these resulted in significant value creation for the business.

In 2013, Nike revealed it had engaged with over 18 million customers using gaming techniques on its Digital platform. It used products such as its Nike+ running app, to let customers set various fitness goals and track their performance against their friends on live leaderboards.

These examples, of which there are many more, exemplify the different ways in which gamification can add value to businesses, and why companies serious about driving growth need to apply game design techniques within their organisations.

What is gamification?

Gamification is about taking all the qualities that make games so addictive and enjoyable (game mechanics) and applying these into real-world situations. The goal of which is to motivate and engage people to exhibit desired behaviours that drive positive business results.

Gamification should not focus solely on the use of points, badges and leaderboards. Another dimension to game theory is centred on how behavioural economics can drive engagement through aspects such as loss aversion. Psychologically, research has shown that people have a tendency to strongly prefer avoiding losses to acquiring gains. Thus, techniques such as placing conditions on 'players' in order to drive repeat engagement can greatly influence their behaviours.

To contextualise this, consider the various game mechanics used by the business-oriented social network, LinkedIn:

- <u>Loss Aversion</u>: Trending information that helps to motivate users is always visible. For example, one widget ranks a user's number of profile views amongst their connections over the last 15 days typically driven by how active and engaged a user is on the site
- <u>Points, Badges and Leaderboards</u>: A profile strength gauge is visible on each users profile to measure how much of their profile information has been completed. This pushes the user to achieve an 'All-Star' status by completing all the fields. This in turn improves their understanding of how the site works.

Why Gamify?

Whilst gamification as a theory is not a new concept, the current business landscape is primed for gamification to make a lasting impact. This macro environment is characterized by a consumer-centric Digital age underpinned by the emergence of new technologies. From its use externally within marketing strategies helping businesses attract and retain customers, to revitalising mundane internal administrative processes resulting in higher staff productivity levels; the scope for gamification is far reaching.

Gamification is about a finding a lever that drives positive competitive behaviour. The competitive element is not novel, but rather the advancement in technology now means we can track and manage it more effectively. As the line between the online and physical world become blurred, the use of game mechanics to attract, engage and motivate people becomes increasingly important within the wider value chain. The ability for people to level up and generate points become real.

To Summarise:

- In a Digital era, the scope for gamification to make a significant business impact is great
- Game mechanics is about using all of the qualities that make games addictive and enjoyable, and applying these within a business context
- As business and technology strategies become inseparable, gamification is fast becoming an enabler for further business growth.

MCA Year of Digital - What have we learned?

—Paul Connolly, Director of the MCA Think Tank, summaries the MCA Year of Digital.

The MCA Year of Digital comprised over a dozen events. Member firms produced around fifty think pieces and thought leadership articles. The Year galvanised MCA members. The Young MCA was especially heavily involved, hosting a number of events and providing the challenging perspectives of Digital natives.

So what have we learned?

We started the Year convinced that consulting plays a uniquely valuable role in all aspects of the Digital value chain, translating the radical challenges of social media, Big Data, gamification, the Cloud, mobile, virtual reality and AI, into language business can understand and relate to. The Year strengthened that conviction. The calibre of entries in the MCA Awards Digital category, the scale of innovations that consultants are involved in, the fact that Digital grew again as a share of consulting revenues between 2013 and 2014 (to 27%), all support our thesis. So do the findings of continued increases in Digital activity evidenced in our End of Year Report, 2015. Our expectation is that when we carry out our detailed analysis of 2015 consulting fee income, the Digital share will have increased once again.

Businesses faced with a Digital challenge should consider engaging consultants before buying any new kit. Consultants can relate Digital innovations to business strategies and real issues for business, like the bottom line.

Digital is shortening the business cycle. However, that does not mean that strategy, based in the past on extended bouts of long-term planning and options appraisal, is necessarily dead. Rather, it is being reinvented. Businesses are seeking consulting support to help them mobilise new Digital propositions. But they are keen to understand how these things fit into a coherent vision. That vision will obviously have to be flexible and adaptable. It will need to focus less on detailed planning and more on a firm's ability to cope with whatever eventualities are thrown at it – its 'strategic preparedness'. But a vision will still be needed. Indeed our Annual Industry Report 2015 noted the first rise in strategy consulting for some years, as businesses looked to consultants to assist them in understanding the challenges of the 'new Digital normal'.

The Report also noted that while Digital is driving growth in areas such as retail, energy and financial services, the growth is to some degree 'anxious', part of businesses' frantic efforts to keep up with the demands of Digitally empowered consumers. This anxiety is creating demand for strategy advice. But it also raises questions about what the keys to business success will be in a context where the new growth has as many challenges as the retrenchment that preceded it. We will continue to examine these questions throughout our forthcoming Year of Growth.

The pace of Digital also doesn't mean it's just a flash in the pan. At the start of the Year, some suggested that the term 'Digital' itself might not see out the 12 months. Yet, if anything, usage has become more common in that time. Indeed, several of our Digital experts suggested that while the Digital Revolution is underway, it has also barely begun.

They pointed to the fact that many Digital innovations, especially in areas like retail, had focused to date on customer-facing adaptations. But these had masked the un-digitised reality of internal processes. As more Digital natives enter the workplace, they will demand more modern working practices. And if retail and other customer facing sectors are already deep into Digital, B2B contexts will soon need to follow, with Digital helping manage and secure best value from complex supply chains and relationships.

Furthermore, businesses need to use Digital to reinvent. Prosaically, a business that has introduced an app for online purchases and promises same-day delivery needs to overhaul its logistics and fulfilment operations. At a

more elevated level, traditional businesses must recognise that many of the fastest growing enterprises are those that are new and completely Digital in their outlook, culture and operations. Businesses that emerged in the pre-Digital era must match the energy of these new models and recast their existing brand values.

Consultants are certainly being asked to do many new things in the context of Digital, providing support for businesses and public-sector bodies in dealing with the various Digital 'disruptors'. But Digital is also transforming the business of consulting: how it is done. Analytics are being embedded in many assignments. Some firms are exploring disintermediation, with cheaper self-managed applications being offered instead of expensive human resources. Increasingly sophisticated Digital ERM systems permit consultants to deploy resources for their clients more effectively than before. Internal collaborations, allowing 'crowdsourcing' of insights across and enterprise, are also becoming more common.

What the Year of Digital has also made clear is that consulting will need to keep changing – relentlessly. In the past, it has been suggested that consultants' focus on clients means that they pay less attention to their own internal transformation. This is certainly not true in the case of Digital. Consultants have made a great start in overhauling themselves. But going forward any firm's ability to advise on Digital, and do so authoritatively and cost effectively, will be in part a function of their own digitisation. Consultants are ahead of the pace. They will need to stay there.

Nowhere is the change in consulting more evident than in its evolving skills profile. There has been a huge rise in Digital consulting activity and in the numbers of people carrying it out. 10 000 consultants work in Digital across MCA firms, more than a quarter of the total. Digital is also driving new recruitment of Digital specialists and a related 46% rise in graduate recruitment. Many consulting business leaders confirm how important they consider getting new skills into consulting and even new 'types' of person. By combining new people in teams with more seasoned professionals, such as sector specialists, consulting firms aim to provide clients the Digital challenge they need in terms they can understand. They are also upskilling their existing workforces, sometimes using reverse mentoring to expose longstanding professionals to the skills of younger consultants and new Digital hires. Consultants are thus well placed to advise businesses on how to combine new talents with old – and ensure that they can speak each other's language.

However, our investigations reveal that Digital skills are both evolving and scarce. Our submission to the House of Lords Enquiry on Digital Skills pointed to Digital's potential to fuse creative and technical disciplines, often separated in the arts/sciences divide in UK education, in useful new capabilities. At our event on Digital and infrastructure, panellists pointed to the benefits of allying traditional building techniques with Digital modelling and analytics to evolve whole new skills sets. At a more basic level, consultants have indicated that a mix of technical people who can speak business, creatives who can code and coders who can create, would be very valuable.

But whatever new disciplines emerge, they are unlikely to be able to address the basic problem of scarcity. Britain could divert a substantial body of undergraduates towards Digital, Digitally equip the economically inactive and operate an open-border policy on Digital skills. But it would still be unlikely that all UK firms needing Digital skills would be able to retain sufficient volume on their books. New models for blending scarce resources with existing teams, through outsourcing, knowledge transfer and pooling across business alliances may be needed. Across the forthcoming Year of Growth, we will investigate these models.

Data emerged as a hot and contentious issue across the Year. As businesses generate more and more business data, so they will need to understand it, deploying analytics to find the insight needle in the data haystack. They will also need to protect it. Cyber security will be a major business challenge in the coming years. Businesses will need to adapt themselves to repel the predations of sophisticated criminals – who have probably in any case already hacked their data.

And who owns data is a matter of controversy. For some contributors to the Digital Year, the current situation cannot continue. People should be given control over the data big businesses and states have gathered on them, so that individuals and not bureaucracies or corporations can exploit the associated value. For others, this is a non-issue. People will be content to hand over data provided they get a good services or products from doing so. What is clear is that data's value is imperfectly understood. Whether that value should be clarified by governments, through regulation, or by market forces, with businesses responding to increasing consumer agitation, is itself a matter of debate.

One area where government can take a lead is in digitising itself. MCA members are involved in numerous initiatives to support Digital in the public sector. But while the creation of the Government Digital Service and initiatives such as Open Data have been a good start, many MCA members believe that more could be done. Much of the Digital discussion in the public sector still concerns legacy systems or whether an existing transaction or service relationship can replicated online. Important though these matters are, they are hardly transformational. Government should be looking for opportunities to use Digital to recast the relationship between the citizen and the state. These opportunities should be pursued with especial vigour, since they also promote a core government objective: saving money. Digital facilitates self-help. It can support the effective management of enquiries. To take one simple example, a local authority with an app-accessible database on its street scene activities (roads repairs, lighting, street cleansing) would be less likely to face multiple complaints about a pothole – through councillors, MPs, officers, all potentially recorded as different cases – since people looking to report the problem could see if it had already been logged and was scheduled for action.

The MCA's Year of Digital has been a great success. The Year has now ended. But we are only at the start of the Digital journey for the UK economy – and for management consulting. Digital and consulting's centrality to it are topics we will return to again and again in the coming years.

What they said about the Year of Digital

"The Year of Digital hit the big strategic questions. Compelling, provocative and relevant."

Rachel Barton, MD, Accenture Customer Strategy

"The Year of Digital valued us Digital natives and our insights. It prompted us to adopt Slack and Sli.do for event planning and management. But the Year's ultimate success is what it did for our industry. It established a powerful association between Digital and consulting."

Howard Rees, CSC, Young MCA Committee

"The Year of Digital is one of the most important reasons behind our decision to join the MCA. As a specialist in marketing consulting, we see the scale of the Digital Revolution in business. Hats off the to the MCA for taking this topic seriously enough to devote a whole year to it and generate the debates and content that will enable both management consultancies and their clients to deliver significant change to the bottom line with the help of Digital."

Richard Robinson, Managing Partner, Oystercatchers

"I was delighted to participate in Year of Digital events and thought leadership. This allowed me to showcase my own insights and experience and hear other perspectives from across our industry. A brilliant initiative, managed with great energy, coherence and enthusiasm by the MCA team. What I particularly liked was the recognition that Digital is changing the way advantage is created, defended and monetised - and not only a way to transact product and services at lower cost and with more customer engagement."

Carlo Gagliardi, Partner, PwC

"The Year of Digital demonstrated that many MCA firms contain leading Digital players."

Bella Thomson, Digital consultant, KPMG

"The MCA Year of Digital was a powerful mixture of insight, debate and call to arms. Not all member firms (and others who participated) started the year in the same place in their understanding of the practical challenges or massive opportunities presented by digital. By the end of it, I believe many consultants will have re-thought the role of Digital in their own businesses, and in the expertise they provide to their clients."

David Freedman, Director, Huthwaite International