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Intervention, Innovation and Disruption in an Interconnected World

A conference report

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Foreword

Chris Watson
Global Head of TMC at CMS

It is hard to say if there has ever been a more turbulent time in law, business or politics. Britain is facing the prospect of exit from the European Union, while the world is adapting to an unexpected outcome in the US presidential election. All of this is creating a great degree of uncertainty, which is the enemy of business and poses serious risks to the future of investment across a host of industries.

That uncertainty makes this fast-moving world of technology, media and communications even more precarious, at a time when emerging innovations will require billions of euros of investment over the coming years as well as a steady regulatory framework and world-class talent. If Britain wants to be at the heart of the digital economy and to maintain its position on the world stage, it needs to be participating in the dialogue right across Europe and further afield.

For the TMC sector to thrive there needs to be a balance between flexible regulation and competition. Regulators at both the state and EU level must when seeking to classify and regulate markets, always question whether there is, in fact, a problem that needs to be resolved. Care must also be taken to ensure that any regulation does not distort a market.

Regulators have an enormous responsibility to identify and protect consumer needs properly without impacting on the viability of market operators, from emerging 'disruptors' to established mobile operators facing hefty capital expenditure bills when new 5G technology comes on stream. Is it logical that regulators in Brussels can require Airbnb hosts to detail the number of coat hangers they have in their homes while other jurisdictions, such as Amsterdam and Portugal, provide a more flexible, enforceable regime? Can regulators continue to block consolidation in the telecommunications sector in some countries when operators are trying to drive large-scale investment programmes on thin margins?

These are only a few of the many questions that need to be addressed. As new frontiers of innovation are opened up and developed, from blockchain cryptotechnologies to big data machine learning, there needs to be a level playing field and everyone has a part to play in ensuring that happens.

Are disruptors especially vulnerable to disruption?

Many companies aspire to be, or claim to be, 'disruptors' in their sectors. It is a term that has become a byword for innovation, technological know-how and the ability to challenge once seemingly established sectors. There are numerous examples of 'disruptors' across the globe from Airbnb, the online peer-to-peer marketplace for home rentals, to Uber, the app-based taxi company whose business model is considered so 'disruptive' that it has caused public protests from London to San Francisco and Shanghai.

Consumers worldwide are also increasingly espousing the virtues of 'disruptive' businesses and their superior ability to predict and meet customer needs, in a shift that could have far-reaching consequences for traditional, mature companies. Katie Nagy de Nagybaczon, partner at Olswang, questions whether the term 'disruptor' is actually meaningful and, more importantly, whether it helps or hinders companies trying to break into new markets and attract investment.

Patrick Robinson, director of public policy for EMEA at Airbnb, which has shaken up the established hotel industry in 191 countries so far, says he believes that the term disruptor has become a 'slightly empty buzzword'. It is a word that can mean anything to anybody. He believes that companies are more successful if they think less about being a disruptor and more about being a 'good partner to others'.

Being perceived as a partner can make it easier to break into a sector. Laura Mirabella, chief executive of uFirst, an Italian company that offers last-minute 'skip the line' premium services at airports and tourist attractions worldwide, says being labelled a disruptor was unhelpful: 'People suddenly close their minds as they feel you are changing the rules of the game. It is much better to be perceived as a partner offering a service.'

Tony Horrell, chief executive of Xgemina, a financial technology company, says true disruption means bringing about a revolution from within a sector and 'moving it forward'. It is not without risks however. Paul Silver, a senior associate at CMS, says that often companies deemed disruptors can find themselves receiving significant, and sometimes unwanted, attention both from the media and from regulators, as has happened with Uber.

The issue for many innovates is that new business models can create new regulatory challenges particularly when it comes to managing the acts of individual people across different jurisdictions. Airbnb's Mr Robinson says the millions of people using its platform 'are participating in the tourist industry in a way that non-professionals have not been able to do at scale before and regulators don't really always know how to deal with that'. He says that when companies are creating genuine consumer choice, where none existed before, they must work constructively with everyone from consumers and city administrators right up to the European Commission to illustrate the benefits that 'disruption' can bring.

Only constructive, vigorous and sometime difficult conversations with relevant stakeholders will result in appropriate, proportionate and enforceable regulations. Ms Mirabella says in Italy, uFirst struggled at first to break into the tourist market as it is an established and highly valuable sector with a number of dominant parties. It was only after agreeing to certain limitations to its own business model that uFirst was launched and Ms Mirabella says that regulation is sometimes manipulated to maintain a ' trade off' in the market.

Mr Horrell says the creation of such regulatory 'antibodies' against innovation occurs more often than is desirable and is driven by the fear of change among incumbent rivals. True disruptors need to work hard and effectively to puncture such resistance. Airbnb, for example, adapted classic US-style organisation techniques to mobilise its users to become publicly engaged in regulatory discussions, even though it was accused of underhand lobbying techniques. However, Airbnb’s view is that its consumers have as much right to promote its business as well-funded lobby groups have to promote rival incumbent companies.

But regulatory battles aside, disruptors also face other challenges, notably maintaining their competitive edge against incumbent rivals as well as new disruptors entering the sector. In the leisure sector, for example, the big hotel groups have been quick to respond to the threat of Airbnb by differentiating their brands and through mergers and acquisitions, such as AccorHotels’ recent purchase of One Fine Stay, a high-end version of Airbnb.

Hazel Moore, chairman of FirstCapital, a specialist technology investment bank, says disruptors will always be vulnerable to disruption as technology and consumer demand is constantly evolving. There are also sectors where disruption is still to be felt with the development of robotics and artificial intelligence likely to revolutionise the manufacturing industry, particularly the automotive sector in the coming years.

Mr Horrell says this the 'best thing' that any disruptor can do to stay ahead it is to keep 'sharpening' its business model: 'Simplify it into something that is really easy to understand'.

A hotspot for blockchain innovation

Peter Smith
CEO at Blockchain

Blockchains have been billed as one of the most exciting technological developments since the invention of the internet and one that could have vast implications for how global trade is conducted.

A blockchain is a distributed public ledger that autonomously maintains a constantly growing list of records or 'blocks'. The most famous blockchain is Bitcoin which is a peer-to-peer payment system that created an efficient, cross-border digital currency that is not controlled by a central bank. But Bitcoin is just one example of what a blockchain can achieve.

The fundamental technology behind Blockchain is a way of ordering data and securing sequences of data using advanced cryptography and applied network theory. Its use is most relevant when dealing with items that are high value in a low trust environment which is why there has been significant excitement about the role Blockchains could play in helping to revolutionise the financial services sector.

However, the use of blockchains is likely in time to permeate all global business. BHP Billiton, the Anglo-Australian mining giant, recently announced a blockchain initiative to trace the source of gold in jewellery at a time when traceability in supply chain management is a major issue. The Australian Stock Exchange is moving its platform to a Blockchain system as is the Delaware Companies House in the US. The UK government, under the leadership of Sir Mark Walport, the chief scientific adviser, has recently written a 150 page report detailing how Blockchains could enormously reduce costs and effiencies for government back office functions, such as the Land Registry.

Peter Smith, the founder and chief executive of Blockchain, the world’s most popular Bitcoin wallet which has carried out 100 million transactions, says anything that is valuable could benefit from a blockchain: 'People’s homes are valuable, people’s identities are valuable, the provenance of a rare bottle of wine is valuable and what blockchains can do is fundamentally change how we manage and track value.'

However, he says while there is tremendous excitement around the industry some of the 'triumphant headlines about how blockchains are going to take over the world' are premature. 'As a person who has been running a production system longer than anyone else in the world I can tell you we are only about 10 per cent of the way there,' he explains. 'There is a huge amount of research that needs to be done – really deep conceptual research to solve really important problems. We are working with a lot of universities to help tackle some of these problems.'

Much of this research is being carried out in London which has become a hotspot for Blockchain innovation and has the largest pool of blockchain coders in the world – nearly three times that of its nearest competitor. However, concerns are high that the impact of Brexit could begin to diminish the UK's role in leading this breakthrough technology as well as its ability to recruit world-class talent.

Blockchain's Mr Smith says that for the last two quarters, financial technology companies in Berlin and New York have raised more money than in London. 'That is a huge market shift that is happening because we have a huge level of uncertainty right now, to the extent that that every fintech chief executive I know has pulled back investment in the UK market. I think that is a really dangerous thing – not only is there a question about the ability to finance UK based companies but also about the ability to move quickly and execute in the market.'

Platforms – regulators gotta catch ’em all

The digital economy is constantly moving forward in new and unexpected ways – earlier this year Pokemon Go revolutionised the world of app-based games and augmented reality and created a global sensation in the process. It is one of countless examples of digital innovation but, as is often the case, regulators are not always able to keep pace with the speed of such developments.

This is why Europe’s regulators are now heavily focused on how best to manage online platforms. The European Commission has set out a number of aims in its quest to regulate the world of online platforms. It wants to create a level playing field for comparable digital services while encouraging responsible behaviour, maintaining transparency and fairness for users, and safeguarding innovation and open, non-discriminatory markets.

It is a bold aim and one that Marieke Scholz, deputy head of the Directorate General for Competition in the European Commission, says is underpinned by the desire to 'get it right and have appropriate and proportionate regulation where necessary to address a particular problem'.

However, at the moment there is still no definition as to what actually constitutes a platform, which can cover a host of activities from social media to marketplaces and online payments. There are open questions as whether there is any particular activity within this sector that needs to be regulated. It is also unclear what this all means for a telecoms sector which is being rapidly transformed by digitization as internet 'over the top' (OTT) platform services, such as instant messaging and video streaming, increasingly compete with traditional providers of electronic communication services (ECS).

The regulation of online platforms has been a bone of contention for some time in Europe because although there is a comprehensive Electronics Communications Code it does not address many of the services delivered by the OTT providers. There are concerns about whether this framework is distorting the market and potentially creating an unfair disadvantage for the telecommunications companies.

Alejandra de Iturriaga, director of telecommunications at La Comision Nacional de los Mercados y La Competencia in Spain, says that new rules to 'level the playing field' between OTT providers and ECS providers will aim to strike a balance between the different interests. 'A level playing field will have to take into account the principles of proportionality and equity,' she says. 'This means you have to take into account different circumstances and apply different rules to different players.'

However, how the 'different players' are identified is causing concern, as providers are being divided into those who use supply 'number dependent' or 'number independent' services. Those in the former camp, often the traditional telecommunications companies, are subjected to the full for of regulations within the code while those in the latter camp will, with a few exceptions, largely escape them.

Chris Watson, global head of TMC at CMS, believes these definitions are 'over-precise' as it is not always material whether a service provider uses numbers or not, particularly as consumers may fail even to see the distinction and may consider these services to be 'substitutable'. 'It [the definitions] could still be made to work,' he says.' But the regulators applying it have to realise they have created an artificial distinction which is distorting the market.' Lidia Kozlowska, former deputy president of the Polish Office of Electronic Communications, says that whatever definition is used has to be 'future proof' particularly as IP addresses and international numbering plans remain scarce resources.

In an already complex sector with overlapping regulations, Ed Richards, managing partner of Flint Global, say serious efforts need to be made to ensure that Europe is taking the right approach between protecting consumers and encouraging innovation and investment.

Four into three won't go: the new industrial policy for TMC

There has never been a question that technology has brought innovation and choice to consumers worldwide but not everyone would agree that part of that success has been driven by certain regulatory policies. The role of the regulator has always been controversial in the world of telecommunications. Never more so than today, when the pace of development of new technologies and the cost of implementing them continues to grow rapidly.

Europe is already looking at the introduction of 5G technology, which the European Commission estimates could cost €700 billion over the next few years. However, such large-scale investment requirements fall within a telecom industry that is already under heavy pressure with static margins and dramatic cost-cutting programmes under way. Telecoms operators are having to navigate turbulent waters and a period of significant consolidation in the sector is anticipated in a move which is already causing concern to European regulators.

Karim Taga, managing partner of Arthur D Little in Austria, says Europe's telecoms industry has to undergo a major transformation where operators converge and begin to rebalance their pricing models to better reflect consumer demands for voice and data services. He expects that pricing within the sector could follow the yield management model set by the airline industry where the cost of a service changes according to the level of demand and the time of day it is used: 'We need intelligent pricing for a sustainable model so operators can still invest in new technology.'

Average profit margins for most telecommunication firms in Europe have fallen in recent years raising concerns about how these companies can remain competitive, pay dividends to their shareholders and still re-invest in their businesses. Consolidation is often seen as the answer but regulators in Europe are worried about the risk to consumer choice and pricing competitiveness when consolidation reduces the number of operators, from four to three for example.

Maria Luz Medrano, chief legal officer at Telefonica, says: 'Changes in technology are happening quicker and as a result of that risky and quick investment decisions should be taken every day. In this context, synergies are becoming more important and investors that are considering this market are focused on the return on capital investment.'

She adds that the potential scale of consolidation in Europe could be immense as there are 450 million people served by more than 100 telecoms operators. This compares to the US where four large companies – A&T, Verizon, T-Mobile and Sprint – provide services to 300 million citizens. 'By 2025, according to European Commission plans regarding the Gigabit Society, we are expected to have one gigabyte per second capabilities and this means that European companies have to have the opportunities to strengthen themselves to address these goals.'

Despite the potentially huge funding gap, Jacek Nieweglowski, chief strategy officer of Play, the second-largest mobile operator in the Polish market, says there is no need to be overly gloomy. 'We are not facing the end of the world – it is just the market is not growing as much as it used to,' he explains. 'The development of 5G may be a challenge but it will also bring relief as it will drive yet another incremental improvement in efficiency. This is why we are upgrading our networks – not because Brussels tells us to – but because it allows us to keep the production costs down.'

In the UK, regulators recently blocked a proposed merger between Telefonica’s O2 UK with Hutchison Holding’s Three network while in Austria a 'four into three' consolidation was only allowed after the regulator secured concessions to allow mobile virtual network operators to share networks with incumbent operators.

No one believes there is a 'magic number' for determining the right number of operators but Mr Nieweglowski says there is a need for greater flexibility: 'When an industry is going through change some operators will cope better than others and consolidation is a way of allowing companies to exit without making heavy losses. Any healthy industry has to allow people to exit the market.'

New technologies: the costs and benefits

Dr Andrei Kirilenko
Director of the Centre for Global Finance and Technology at Imperial College London

Since the global financial crisis of 2008 there has been some serious soul searching within the world of financial academia because barely anyone sounded the alarm. There was an enormous looming crisis but how many academics came out and said this was about to happen? About two. In the wake of the worst recession on record, academics are thinking differently about the market and so too are the finance industry and its regulators.

Policy makers have flooded financial markets with liquidity so institutions could survive and have brought interest rates down to zero or even negative levels in some cases. It has helped the industry to survive but now everyone is trying to figure out how to make money in a market increasingly beset with evermore costly regulation.

Financial chief executives considering what to do are increasingly looking to cut costs and increase efficiencies through further technological innovation. It is necessary in an industry where costs can remain stubbornly constant. A recent study shows that the cost of creating and maintaining one dollar of an intermediated financial asset over 130 years is consistently about two cents. We know the financial services sector is a consummate user of various types of computer and telecommunications technology and we know the sector attracts high calibre people - so why is this cost not coming down? Perhaps because the public is getting more benefits per unit cost from the financial services industry than before, but neither the public nor the academics think so.

For profitability to improve there needs to be a fundamental change within technology and automation within financial services. A paradigm shift akin to the evolution of the scanner which allowed visual images of documents to be shared costlessly across a network. And it is coming – crypotechnologies is a major IT innovation and catalyst for change and the finance industry has taken note.

Crypotechnologies – or distributed consensus ledgers known as 'blockchains' - can improve the efficiency of the whole system and processes around transactions while reducing costs. It is easy to use, very open and there are no licences or entry barriers. A number of very large industry players have entered into this space and there are a host of research and development consortia, accelerators, and venture capitalists looking to invest in a development which is at the intersection of technology, communications and the financial services.

However, it won't be plain sailing. Distributed technology is horizontal and open but the problem is that most financial services firms are organised into vertical silos. Introducing cryptotechnologies across the board would involve convincing various people up and down the various divisions that they have to adopt this new technology in a potentially arduous task.

But this is where the opportunity for start-ups arises as such ventures can decide to focus on just one slice of a financial services business. For example, a start-up could manage only certain types of payments or focus on the storage and protection of customers' digital identities. There is a growing view that banks, which have invested very heavily into security, could increasingly seek to leverage those capabilities and store peoples' identities for use in authorised transactions.

Regulators are taking notice of this emerging distributed ledger technology with the US Securities and Exchange Commission considering whether to regulate it under rules that already exist for 'Transfer Agents'. Even though Blockchain technology is nothing like a transfer agent – which charges a fee for money or assets changing hands - this is where the US regulatory viewpoint is at present.

From a legal perspective it is a very interesting time to start considering how these digital ledgers are going to be regulated, particularly as people are quite enamoured with the idea that the pendulum has shifted in the direction of cryptography. The view is that if computer science can do a better job than humans, who have to be incentivised every step of the way, then why not use it.

Surveillance society: big data

More data has been collected in the past two years than in the entire history of the human race and not even half of it has been analysed or used yet. By 2019 the worldwide value of data is estimated to be more than $100billion, according to IDC. These are facts that are met with either extreme excitement or trepidation by consumers and regulators worldwide because while 'big data' poses potentially huge opportunities there are fears it comes with significant risk.

Mike Merritt-Holmes, the vice-president of services for UKI and Nordics at Think Big Analytics, says much of the fear about big data is misplaced, describing it as more of a 'movement' started by companies. 'Companies were trying to get that 360 degree view of their customers but were struggling to do anything really meaningful with their data,' he explains. 'Until a couple of pioneers introduced some new technologies to look at data in different way and open sourced that software and made it available to the public.'

Combining these new pioneering technologies with machine learning is what has really created the buzz around 'personalisation' and big data. Justin Basini, chief executive of ClearScore, which provides free credit history reports, says: 'We are all walking around with these [smart phone] computers in our pockets with the ability to collect and store that data in a cheaper way than ever before. All our behaviours are being digitised the whole time – where we are, what we are doing and what we respond to - and that creates a massive opportunity to solve some of the problems we have in business but also in society.'

But there are growing concerns about how big data should be regulated. For example, there are questions about who owns the data and how it should be used, as well as concerns about whether consumers are informed enough to give proper consent to the use of their data.

Jason Sahota, the chief executive of Charles Taylor InsureTech, says the biggest challenge from an insurance point of view is determining who owns the data and how to protect it. Different countries also take different regulatory approaches with Germany adopting a particularly conservative view. Christian Runte, a partner at CMS, says across Europe much of the regulatory focus is around the use of personal data as well as the consumer perception of how big data is used.

However, most agree that the fundamental challenge facing the use of big data is ensuring there is complete transparency around its use. Mr Runte says the new General Data Protection Regulation will not make compliance easier to achieve for businesses. 'It is the responsibility of whoever is collecting the data to get consent which is why you are clicking through so many 'I accept' buttons these days, but is anyone reading these [consent requests]?,' he says. 'It is a challenge for industries and lawyers to meet these requirements in a customer-friendly way that is very clear and transparent.'

ClearScore says it asked 10,000 people to analyse their data and only 12 per cent gave their consent. However, when those same consumers were asked if their data could be analysed to help better predict when people might fall into credit difficulties the 'opt in rate' rose to 45 per cent: 'If you are transparent about what you actually want to do with the data and actually have a conversation with a customer they can make informed consent,' explains Mr Basini. 'It opens things up.'

Education is clearly key to the debate on big data not only in terms of convincing customers but also in striking the right regulatory balance that does not stifle innovation. This is particularly important at a time when Europe is trying to implement a single digital economy in Europe. 'This is not about big brother,' says Mr Merritt-Holmes. ' This is about the responsible use and analysis of data.'

Conclusion

Chris Watson
Global Head of TMC at CMS

The world of technology, communications and media (TMC) is on the cusp of entering its most exciting and innovative phase across the globe. There are developments that are taking place today that were not even contemplated just a few years ago and the speed of this innovation is only expected to accelerate in the coming years. Questions are being posed that have no prescriptive answers and much time and energy needs to be devoted to managing both the speed and the delivery of new technology and innovation worldwide.

With a depth and breadth of experience that spans 61 offices in 35 countries, CMS is at the forefront of helping to drive and participate in this change and innovation. CMS is already the largest law firm in Europe and we are about to become the sixth largest in the UK by revenue as well as in the world by headcount following our merger with Nabarro and Olswang.

It is every exciting times for all of us in this interconnected world which brings so many benefits but poses many challenges to the way businesses operate. Whether you invest in the TMC sector or embrace the smarter use of technology everyone must participate in the dialogue and learn from the best practice of others as we create a digital single market in Europe and drive innovation worldwide.

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