

Speech by the Permanent Secretary to the Department for Digital, Culture, Media and Sport, Sarah Healey CB: *The History of Digital Policy Making*

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Slides referred to in the speech are available at the end of this transcript

Introduction

Thank you for joining the first of two speeches on digital policy making within the UK.

Digital technology has significantly re-shaped our economy and our society since the beginning of the 21st century. The UK and other leading digital nations are now living in the 'knowledge' age, where growth, innovation, scientific progress and the way we live our lives are all driven by rapid, often unpredictable advances in technology and the digitalisation of society. And despite the colossal change we have already experienced we are nowhere near the end of this transformation.

Supercompute technology and the softwarisation of infrastructure. Artificial intelligence and quantum computing. The metaverse and augmented reality. These are all on the horizon and if even only a handful deliver on their promises, the changes driven by the last two decades of technological change will pale in comparison to the next fifty years.

And so, technology and digital development will continue to make a radical difference to how we live our lives as well as defining the future economic and security success or otherwise of the countries we live in. These speeches are about what those changes have meant for the business of government and what they are likely to mean in future.

There is endless commentary and analysis of how the internet has developed, how tech giants have become dominant in our economy, how technology has improved and transformed almost every industry sector and how our lives have changed now we live them online. But a lot less on how government and the public administration has responded to the impact of technology on our lives, our economy, our security and our society. While individual policies are rightly scrutinised, challenged or lauded there is little debate about whether government and the civil service have organised themselves to set digital policy effectively.

I hope my speech today will start more of that conversation and kick off an ongoing assessment of how the civil service has changed and must continue to change to be able to support Ministers in setting and delivering policy objectives in a digital world.

This is a good moment to reflect on how our public administration has responded to that technological change in its policymaking as we are currently seeing the fastest and most substantial programme of digital policy ever.

The first regulations for online harms, the first investment in full digital connectivity for the whole country, the first digital competition regime, the first comprehensive digital trade agreements. These policy milestones are not just important because they are novel, but because - 30 years after the creation of the internet - they are among the first steps in digital

policy making that all governments, globally, will have to build on. We must learn from them individually as interventions and we must reflect on how, institutionally, government has established itself to develop them and to be able to continue to set excellent digital policy in the future.

Focus of this speech

Just briefly I should offer some definition on what I mean by digital policy making. It's not digital as opposed to analogue policy making - it's not about the way we make policy or about the way government uses digital technology to deliver its own services. It's the shorthand we use for policy making in response to the massive transformation effected by digital technology on the world we live in.

This cross-cutting digital policy includes how we manage the harms people are exposed to online, the permissions we give for how our data is used, the governing of competition in digital markets as well as ensuring the sufficiency and the security of the digital infrastructure on which the country now depends.

These are some examples, there are many more. Given their importance, their novelty, their complexity and their controversy, I think it is crucial that the civil service and the policy-making community of academics, industry, NGOs and civic groups invest in recording and learning from this history of digital policy in the making. So that civil servants and those around them working on future developments in digital technology in five, ten and fifty years' time understand the decisions we took now and why we took them.

Tonight I am going to look at how the civil service has had to evolve to develop and deliver digital policy. I will explore the consolidation and expansion of digital policy within DCMS, the emergent significance of digital policy in government and the drivers for that, and why I think digital policy will continue to be a critical, sizeable and indeed specific part of the policy landscape for the foreseeable future.

I hope you will find it a good setup for the second speech in this series which will be in the autumn. In that, I will explore the future challenges for digital policy-making.

Section 1 - DCMS's becoming the digital policy department

I am following a good model for this, one pioneered by the Strand Group and the former Permanent Secretary to the Treasury, now Lord Macpherson. Nick wanted to improve Treasury officials' understanding of the history of the Treasury and fiscal and economic policy-making in the UK. He felt too much knowledge and memory was being lost and future policy making would consequently suffer. I agree with him - historical analysis is a hugely undervalued aspect of policy analysis as undertaken by the civil service.

With the support of the Strand Group, Nick delivered a series of speeches on the work of the Treasury which continue to this day and which have grown into a wide programme of activity, including a post-graduate course studying the history of the Treasury's policy work.

There are no limits to my ambition for how seriously DCMS as a department should be taken, and so I want to treat the study of the Treasury as a model for understanding our work.

Nick's first speech "On the Origins of Treasury Control" is a neat contrast to my own. His speech opened with the Second Dutch War of 1667. Nick explained how an English naval loss led to reform of the then Treasury. The evolution of the revenue and tax system, the emergence of financial markets, national and then global, the massive increase in global financial capital flows and the development of derivatives and high frequency trading. These all followed that event and so too did the evolution of fiscal and economic policy making institutions in government culminating in the bodies we have today, HM Treasury, HMRC and more. That evolution took hundreds of years.

We do not have such luxury in digital policy. Nick's speech on the origins of the Treasury started in 1667. Mine starts a little over a decade ago.

I'll turn to one of the few slides I want to support this speech with (Figure 1). It's worth us reflecting on what the state of the tech landscape was at that time. These were not the very early days of the internet, limited to academia, the military and Usenet. We were well into the era of Web 2.0. Google's IPO was in 2004, the majority of the UK had broadband connections - mega, rather than giga-bit - and social media was an established part of how we lived.

The world was already being transformed by digital connectivity and the government was seizing the same opportunity as many industries. The UK's Government Digital Service, GDS, was a trailblazer globally and started to get people thinking about the benefits of the digital era to public service delivery. GDS was not however a policy capability even if it was prodding the wider system to wake up to the digital future.

There had of course already been some attempts in government to examine the opportunities and risks of the internet. To make the UK a world leader in e-commerce, in 1999 the Cabinet Office Performance and Innovation Unit - where I started my civil service career - called for many of the interventions we are still taking today: encouraging digital adoption by SMEs, improved internet access, clear tax rules and trusted use of personal data.

The 2008 Byron review, instigated by your own Ed Balls, called for action on content moderation and take down requirements in the interests of keeping children safe online although there was still a heavy focus on restricting access through individual - parental - action rather than imposing responsibilities on the nascent social media platforms.

However, there was at this point no coherent, consolidated capability considering the impact of digital technology within the civil service. There were fragments. The Cabinet Office - with the intelligence community and a number of departments, including DCMS - had been developing cyber security policy seriously for a number of years. A small team in what was then BIS sponsored the 'digital sector' as was - but this spread its effort across the old guard of technology companies such as Hewlett Packard and IBM as well as the new platforms.

This could perhaps generously be called Phase 1 of the UK civil service's development of a digital policy capability. Pockets of isolated activity, reacting to technological change largely as it was felt within existing structures. And, where there were deeper examinations, they still did not anticipate how all consuming the change would be and how rapid.

Phase 2 then saw a more focused reaction across government to the policy issues being generated by rapid digital and technology development. By 2014, DCMS and BIS were jointly running a Digital Economy Unit focused on supported tech companies to start, scale and invest in the UK. The team applied enterprise policies from traditional sectors to attract the major tech players to the UK with some success.

Headquarters and jobs came to the UK, especially London, with support from the coalition government. A machinery of government change in late 2011 had brought telecoms and media competition and policy to DCMS from BIS, due to concerns about the impartiality of the then Business Secretary towards Sky Group.

Along with that came responsibility for "internet governance". At the time this mainly meant net neutrality rather than anything grander like an attempt to drive internet standards towards the values of liberal democracy. Broadband Delivery UK was established in DCMS to drive delivery of superfast broadband across the UK - this sounded like a future proofed delivery programme but turned out not to be.

There was, following the Byron Review, early DCMS-led work on online child safety, which certainly holds echoes of major current activity, although back then the department was primarily confronting it through the ISPs, not challenging the responsibilities of platforms as neutral publishers with no responsibility for content.

So the civil service was starting better to cover parts of the new landscape of digital policy but our efforts were still immature. Firstly, we had not yet grasped the breadth of the strategic implications of tech's impact. There was a heavy focus on growth, but less on security and harms - possibly still driven by a belief that basically the internet would be self-regulating in the service of freedom and good.. We were considering the implications for individual rights and the societal implications of technology in some areas but not all.

Secondly, we were missing the connections and synergies between these issues; the implications for the media sector and content creators of the rise of platforms, or the tension between the rapid growth of the big tech companies, fuelled by rampant acquisitions, and what that meant for competition and innovation. We had also not yet recognised the dependency of our entire economy and delivery of public services across a technology stack for which responsibility was split across multiple departments, or not covered at all.

Thirdly, there were still big gaps in our policy capabilities as small teams raced to try and cover a set of issues unfolding at breakneck pace in ways we simply did not fully understand, the consequences of which were already bedded in before they had been really properly observed. Historic weaknesses in scientific training and understanding within the policymaking community doubtless did not help either.

These reflections are not intended to be critical of any government, Minister or individual civil servant or the civil service more broadly for this lack of join-up. But they are intended to be honest about the way that issues driven by the growth in digital technology which were worthy of coherent and coordinated civil service thinking were instead not thought of in that way.

To be fair, the UK was no worse or better in this than most other leading economies. Rather, most countries did well in some small bit of the emerging policy space. The US obviously incubated an incredibly successful tech industry in Silicon Valley with generous tax and visa arrangements. The UK was and remains a world leader on cyber security thanks to our world class sigint agency, GCHQ, and the substantial, early investment made through our National Cyber Security Programme. The European Union was the first perhaps to recognise how historic regulatory approaches, like on data protection, needed to change as the use of data changed, whatever your perspective on how they approached those changes.

But across all administrations, public policy efforts were limited because the internet was seen as too big, too global and too ubiquitous for a coordinated and planned response from any government alone. There was a sense that national action could not succeed given the supranational structure of the internet and the industry that grew from it. That approach was to be somewhat disproved, almost accidentally, by Phase 3 of HMG's evolution, which takes us up to the current period.

A series of enlightened machinery of government changes from 2015 began to consolidate the fragments of digital policy across government within DCMS. The Digital Economy Unit that was previously shared with BIS was moved solely to DCMS in 2015, together with cyber security policy. A further MoG that year transferred data protection policy from the MoJ, which enabled greater recognition that a primarily justice and rights-based approach on data wasn't appropriate for a digital age. A Digital and Media Director General post was created for the first time in 2016 as DCMS expanded its digital policy capacity from barely 25 staff, plus 120 or so working on telecoms, to maybe 100 officials.

This was the first half of that important Phase and it was critical because consolidating these responsibilities within a single department began to show us both how interconnected the issues were but also how many gaps remained in our coverage of digital policy. Looking at these issues together meant we could recognise that we were championing the economic potential of the tech sector, but were not investing sufficiently in the underlying digital infrastructure they needed to realise it.

We understood from a cyber security perspective that the internet was borderless, but discovered we did not have the capability to respond to that on issues like data flows. We were champions for the jobs and growth the tech sector could deliver but began to also grasp the imperative of responding to the harms we could see existed.

Those realisations were the impetus for considerable growth in DCMS's digital capability and the second half of this Phase was defined by the expansion of our policy remit - digital identity (another MoG from Cabinet Office), digital competition, the innovation potential of data use and data flows, AI regulation, the security and resilience of our technology stack and the global supply chains that support it, an international team that ensured we were

responding to and influencing the global digital policy debate. We created a consolidated and complete digital policy capability.

Within this period of expansion DCMS formally changed its name in recognition of its sizeable, new responsibilities. It became the Department for Digital, Culture, Media and Sport in 2017 - still DCMS but different. The cost of that accuracy has been to annoy some more classically-minded commentators and indeed Ministers who have taken affront that our title now includes an adjective alongside the nouns.

Figure 2 shows the current form of the Digital and Media Group overseen by Susannah Storey. That Group now consists of 1200 officials, including 300 who form the new Executive Agency that has replaced BDUK as a team in the department. And while headcount is not the way to measure importance or effectiveness, it is perhaps relevant to understand that the Digital and Media Group now makes up more than 50% of DCMS's overall workforce and dwarfs the total size of the department in 2015, which as a whole was only 535 staff. The Group is two-thirds of the size of the Treasury in fact. Although our capability was built in years not centuries.

Scale and coverage within organisation design is important although like all of the civil service DCMS will develop options for savings to be made across the next three years to ensure the best value for taxpayers in the current challenging economic climate.

Beyond scale, the coherence of our setup ensures the department can support ministers across the full span of digital policy issues, as well as identify and respond to the new issues coming down the road. Perhaps the greatest strength of the model we now have for digital policy is how, by dint of being in a single department, these capabilities can all reinforce and inform each other and so lead to better, more complete policy-making.

The close working of our teams means that when we design online harms policy, for example, we are also mindful of our interests in innovation and in privacy. When we consider the benefits of investing in our domestic AI capability, we know we also need to ensure we have the supporting data infrastructure as well as the skills base to maximise return on that investment.

This kind of collaboration happens hundreds of times a day in the department. And these synergies are further reinforced when you also factor in DCMS's policy responsibility for the tech sector, the cyber security sector, digital infrastructure, and AI that allows us to support the design of the future digital economy in ways that serve ministers' strategic policy objectives.

This consolidation brings other benefits. DCMS can now also speak with a single, expert voice on digital policy within HMG. This has made the civil service more effective at embedding digital policy within the wider strategic objectives it can support, such as through the Integrated Review, the Innovation Strategy and the Global Britain framework. Digital policy ambition and expertise runs through them all.

Globally, this consolidated set up for digital policy is almost unique among governments. It is an incredible asset to the UK compared to those overseas administrations who continue to suffer from a fragmented split of responsibilities on digital policy.

All of this I believe results in significantly higher quality advice to ministers and, I hope, makes the civil service much more accessible for those organisations that want to engage with it on digital policy.

What drove this expansion and consolidation of digital policy capability within Government? There was political support from a number of quarters. David Cameron wanted the UK to be a tech leader and had advisers with expertise in the sector. Enthusiastic ministers in DCMS, including Sajid Javid, Ed Vaizey, Baroness Shields and Matt Hancock, made sure the department seized the opportunities presented to us.

Later, there was an important political mindset shift as DCMS Secretaries of State and the Cabinet saw the importance of regulation and managing the unavoidable harms that came with unrestricted and rapid digital change. Like other countries, in this, we were following, rather than leading the significance and impact of these issues on our economy and society. But that shift drove more activity as the civil service had to broaden its digital policy making beyond an early focus on realising economic benefits. Our Secretary of State, Nadine Dorries, embodies that expanded breadth of responsibility, being very focused on both delivering gigabit connectivity and tackling online harms.

Brexit was another imperative. Certain issues, like data adequacy, had to be managed during the Exit process and as part of No Deal preparations. And HMG as a whole began to carve out a space for itself globally by designing innovative, pragmatic new digital regulation in areas the European Union had yet to get to, such as on online harms. The need for an expert, lead department on these issues created space for DCMS to further establish its broadened digital responsibilities within government.

And while I am partial, I think it is fair to say that the department itself, and its officials, brought real energy and ambition to the task. The blank canvas of digital policy, its fascinating locus amidst society, technology and industry and its homing with the wider, exciting and positive policy portfolio within DCMS attracted a wave of talented officials to the department. And thanks to years of delivery experience, like the Olympics, and providing a home for new policy areas, like citizen service, the department knew how to bootstrap the growth of new responsibilities in an agile way.

Finally, we benefited from an idiosyncrasy of how our government works. Digital policy being homed in DCMS has meant it has benefited from much greater ministerial attention than it would have done in a larger economic department where politicians' attention has to be spread more thinly. That brings drive and ambition and has meant policy gets pushed forward much more quickly - crucial in such a fast moving world.

It was not a seamless evolution.

Authority on government's own use of data was MoG'd to DCMS in 2018 only to be handed back to Cabinet Office a couple of years later to rejoin the wider DDaT function reflecting the

appropriate separation between the government's own use of digital technology and data for its business and its policy response to those issues in the world. There were occasional turf wars over exactly what was and wasn't digital policy, especially in the blurry field of emerging technology. External partners, and even some government departments, initially weren't always sure why the Department responsible for heritage policy was also setting HMG's stall on digital.

And I personally remember well that some quarters of government had an old-fashioned view of DCMS and a lack of understanding of the growing significance of digital policy and so strongly contested the growth of its capability and capacity. Being kind, until we started doing it they didn't know how much needed to be done. Although, as is often the case, the late Cabinet Secretary, Jeremy Heywood, was a crucial and steadfast supporter.

It is also the fact that when the issues were recognised we addressed them rapidly but not as rapidly as demand. If you chart the development I have set out above against the major milestones of the tech sector's development it is apparent the civil service's response lagged. In a hundred different areas there is evidence of a world that changed faster than policy could keep up. That challenge will remain and I will discuss what it means for the civil service and how we might manage it in my next speech.

Section 2 - Signals of significance for digital policy

The first part of my speech has hopefully painted a picture of what our digital policy capability looks like and how it grew. That is only part of its history. The other important story is why it had to grow - what signals we have of its importance, in the action the government is taking and from the world we are working within.

So, some more recent history. Between 2006 and 2016, DCMS led on 7 pieces of primary legislation. They were important acts, including the National Citizen Services Act and the Olympics and Paralympics Act. But within those ten years there was only one piece of primary legislation linked to digital policy. One Bill in ten years. The Digital Economy Act 2010, and that was primarily about the media sector, enabling online TV and online copyright. If legislation is a measure of output, we can judge there was precious little digital policy making happening in this period. And while legislation is only one of the tools government has to effect its policy objectives, it is an important one. Legislative activity is a strong signal of government's attention to and action on particular policy issues.

It is reassuring then that there has been a significant increase in DCMS-led primary legislation to deliver digital policy objectives. Another Digital Economy Act in 2017, the Data Protection Act in 2018. A number of telecoms' measures focused on security and infrastructure reflected the department stepping up to its national security responsibilities. Groundbreaking new laws sent strong signals to the market that HMG would act to keep our new digital infrastructure layer secure and resilient.

This year's Queen's speech announced four digital policy Bills, 10% of the total legislative programme for the coming Parliamentary session. The Online Safety Bill, Data Protection and Digital Identity, Electronic Trade Documents, plus Product Security and Telecoms

Infrastructure. Bills serving the trifecta of digital policy objectives - protection, growth, security. A draft Digital Markets Bill was also announced for good measure.

This level of legislative activity is not flash in the pan. Digital policy legislation will likely continue to represent a significant share of Parliamentary time for this and future governments. The regulatory regimes we are creating now will need maintaining. Whole new areas will open up - whether on data access, new frontiers of digital trade or enabling the next wave of digital infrastructure creation.

Of course, legislation is not our only tool. There are other signals of the increasing relative significance of digital policy. In 2016, DCMS invested £112m in digital policy interventions. This year it will be over £400m. Much of that early investment was supporting take up of high speed internet as well as innovation in our high growth tech sectors. As our policy capability has expanded so has the breadth and scale of our investment. Billions are being invested in our digital infrastructure while we have also stimulated further very substantial investment from the market. This means we are building ahead of need rather than behind it and in recognition of how critical a world-class and resilient digital backbone is to our society and the development of our future economy.

This investment and intervention by government will not be a one off. The returns are too high because it does not just enable and sustain the tech sector. The UK's economic future, jobs, wage levels, prosperity, national security, cost of living, productivity, ability to compete globally and our geo-political standing in the world are all reliant on continued and growing success in how we exploit and manage the potential of digital technology.

Of course, policy making is the means to the end, not the end itself. I could not argue about the ongoing importance of a digital policy capability in the civil service if the real world drivers did not exist. Fortunately, they do.

The tech sector and the digital innovation it creates is the driving force of the world's economy. My final slide (Figure 3) captures some of its superlatives. While there has been a recent market correction which will play itself out over the coming period, the most valuable companies in the world remain tech companies. The tech sector attracts the largest sectoral share of investment and it has provided the highest year on year returns to investors. The UK's tech sector is world leading, valued at over \$1 trillion in June and contributing more in GVA than the finance or construction sectors.

The tech sector's impact is not limited to the economy. Scientific progress is flowing from its discoveries, its tools and its investment as it used to from the defence industry. Geopolitically, the industry is reshaping how we see the world as China emerges as a tech superpower with its own titan companies and an intertwining of state and industry objectives to lead the world on AI technology.

Technology's impact is felt across our society, shaping how we spend our leisure time, how we socialise, how we shop, study and work. The internet has replaced the TV as our main source of entertainment, 30% of UK retail spend is online and social media is a key source of news for half the population. It even now governs our romantic lives - most marriages now result from couples meeting online - with interesting available data on how successful

technology is in comparison to more traditional methods, like meeting at a party when you've had too much to drink. The internet is a public space and, during the Covid pandemic, access to technology saved lives and kept the country running.

We are also seeing digital's impact in global conflict. Technology is transforming how militaries wage war. But the impact is broader. Russia's illegal invasion of Ukraine has shown the dangers of online disinformation and the role of cyber attacks in hybrid warfare. It has also shown how technology can help identify war crimes and the importance of providing emergency internet connections to war torn regions. Our tools to combat unjustified aggression have had to rapidly adapt to our new world. Sanctions and economic controls have been swiftly expanded to new digital services and sectors. The potential for crypto-currency to evade sanctions has had to be confronted.

These global impacts are also not flash in the pan. It took 30 years for technology to become the centre of our economy and society. It will remain so forever. Government must be able to respond to that and to learn the lessons of how strategically and comprehensively to anticipate and respond to the totality of change and in some cases the huge threats that technological innovation brings.

Section 3 - Why learning from history matters for digital policy making

We will do this best if we retain the knowledge of what we have done before and sustain links with the expertise we need to confront new issues. We have learnt that digital policy - like all sophisticated policy development - requires choices to be made. The balance between economic, security and societal objectives. The weighting of short term interventions against long term strategy. Recognising what can be achieved nationally versus when issues are only truly resolvable on the international stage.

Digital policy decisions will help determine which countries develop the strongest tech sectors and so reap the economic and science benefits of that. Good public policy decisions are needed to minimise the harms and the risks associated with digital change. The states that get this right will enjoy the significant opportunities it brings without damaging our democracies, citizens' wellbeing or our fundamental rights. And UK values for how technology is best and responsibly used can be projected globally.

Great progress has been made towards those goals, but we have still only built the foundations. We are in the first era of digital policy making and big challenges and big opportunities are still to come. The global conversation on digital policy will mature. Technology will develop with unpredictable impact, societal views on technology will evolve. We will be best placed to respond to that if we identify, interrogate, learn from and record the lessons of our current endeavours. I hope you will work with us on that and I hope my speech this evening helped provide a common starting point for that collaboration.

My next speech in this series will explore some of those emerging lessons and the challenges they suggest we will have to overcome.

Some of those will be very practical issues like how the policy making process can keep pace with rapid digital change or how we source the expertise needed for good policy making.

Every era since the creation of the internet has thought that it has seen the biggest and fastest changes which will ever be seen. They've all been wrong. I therefore am pretty sure that the next wave of technology will bring even greater change than this one. How can we ensure we do better in being ready this time?

That seems a good place to end and I hope it has piqued your interest for the next speech.

I'm grateful to the Strand Group, Amazon Web Services and Workday for providing the opportunity to explore these issues with you. I hope, as I said, that this is the start of a conversation with the digital policy community. We are keen to find partners to expand this work whether through academic study, education and training or capability building, within the UK and globally. If that is of interest please do get in touch.

Slides referred to in speech

Figure 1.

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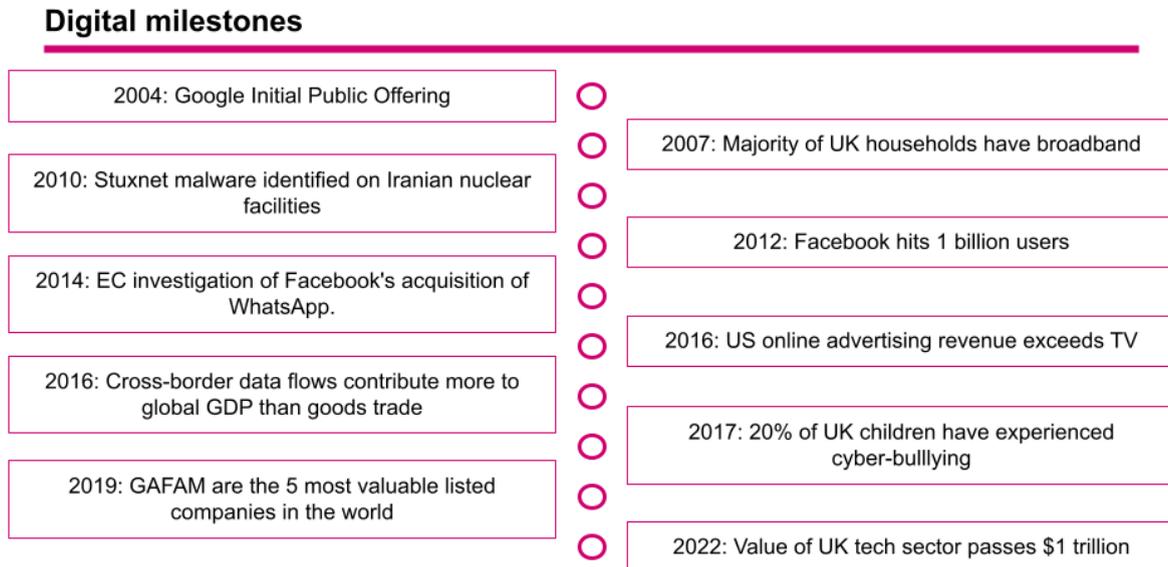


Figure 2.

3

Creation of a 'digital' policy capability in HMG

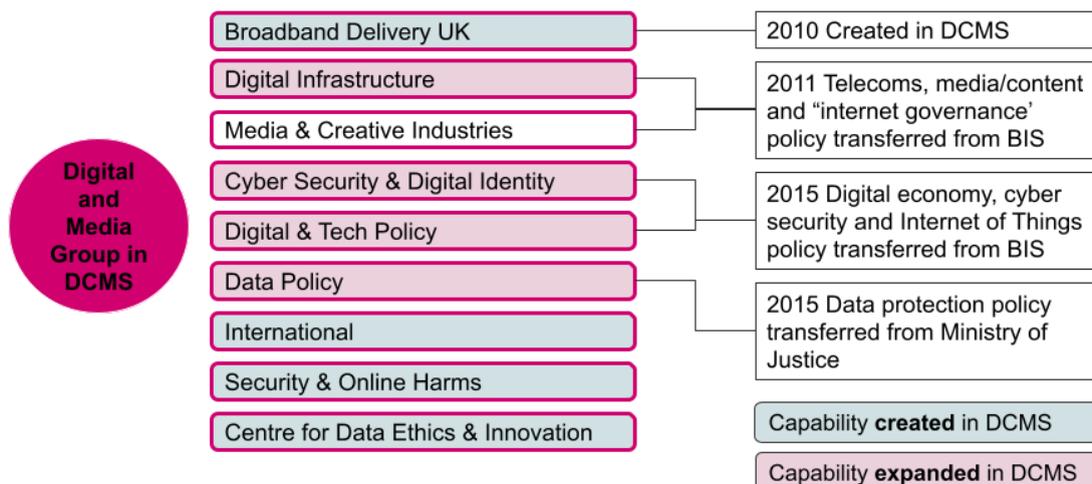


Figure 3.

Significance of the tech and digital economy

-  40% of London IPOs in 2021 were tech companies
-  20% of global M&A activity by volume; tech sector transactions hit \$1 trillion in 2021
-  UK Digital sector GVA contribution exceeds finance and construction sectors
-  Chinese tech start-ups generated \$131bn investment in 2021 (up 50% from 2020)
-  6 of the 10 most valuable companies in the world are tech companies
-  Tech sector has provided highest shareholder returns in previous 5 years; double the cross-sector average