THE 2017 VINCENT BRISCOE LECTURE – 15 November 2017

Big Data needs Big Ideas:
Engaging Social Science for Effective Security Science and Technology

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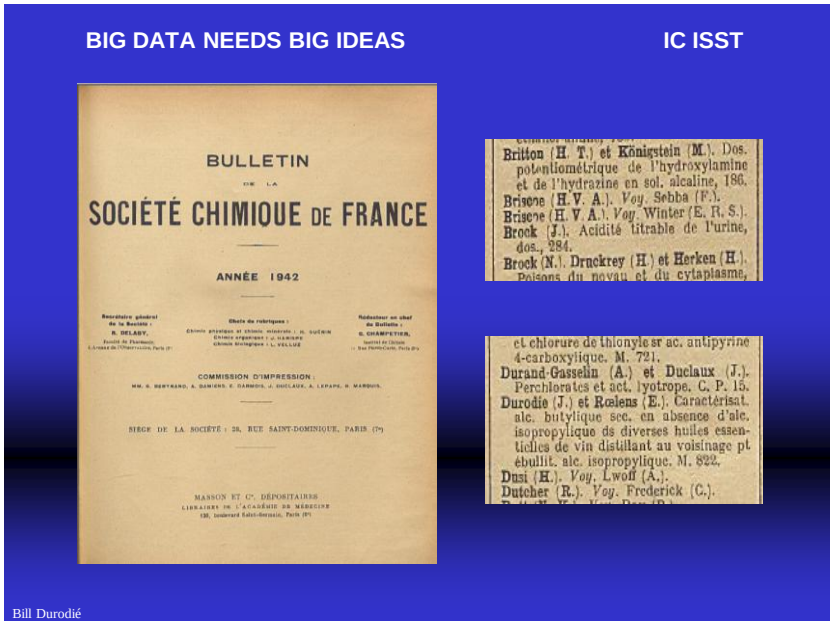
Ladies and Gentlemen, let me start by extending my thanks to the Institute for Security Science and Technology here at Imperial College, and in particular to Professor Chris Hankin – its Co-Director, together with Professor Bill Lee – for their kind invitation, as well as to their staff, who have all been very supportive, including Dr Deeph Channa – a former student and colleague of mine.

I am particularly pleased to be – as far as I can tell – the first former student from Imperial College to give the Briscoe lecture – I studied Physics here in the early 80s, before becoming distracted by the impact of society on science.

And I have an additional rationale for giving this lecture. As I sought to understand a little more about the life and times of Vincent Briscoe – I discovered that he had published in the Bulletin de la Societé Chimique de France in 1942 – one of the same years as my grandfather – another chemist – had.



Aside from this personal connection, we remember and celebrate Vincent Briscoe today because his achievements – particularly in relation to wartime security – still have relevance for us collectively, as Science and Technology continue to be called upon to help address our security challenges. And Imperial College is certainly at the vanguard of these.

But – I want to suggest – that such activities, while necessary, are not sufficient to imbue our collective and personal lives with deeper meaning. If: '*It is the threat that drives activities*' today, as a senior official announced at the start of a funding event for security science and technology recently – then we really are all somewhat diminished by that.

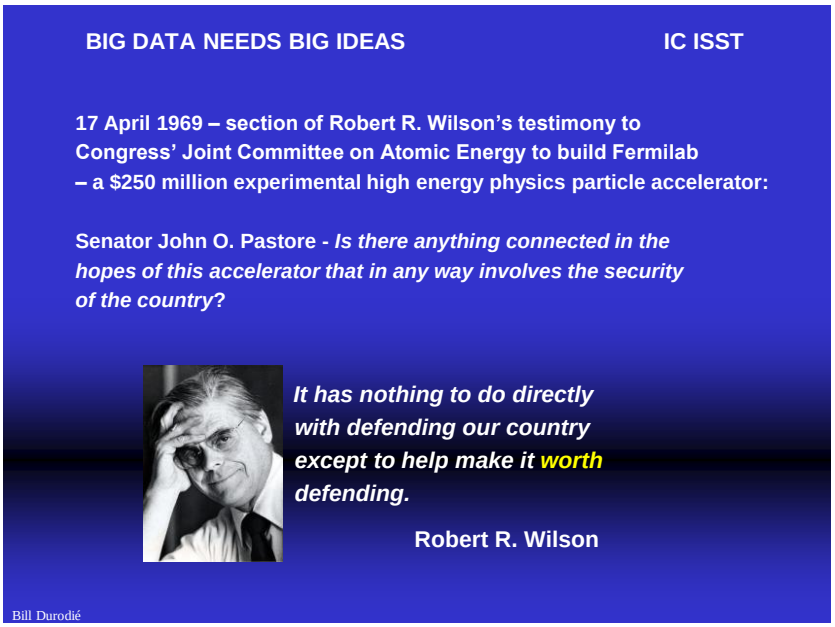
In effect – that would mean that threats lead and we are simply called upon to follow.

In fact, we ought never to lose sight of our having a broader purpose for science and society – beyond the threats and challenges that we confront today. And meaning is really the theme of my lecture this evening – or at least, the contribution that a proper – contextualised – understanding of the social sciences can provide to this.

At the height of the Cold War – and in view of the then spiralling cost of pursuing sub-atomic research – the founding director of Fermilab in the US, Robert Rathbun Wilson, was called on to testify before a Congressional Committee to account for the work of what was – at the time – the world's most significant particle accelerator.

Some of the Congressmen wanted to know what the contribution of high-energy physics was to securing the nation's defence. Wilson advised:

'*It has nothing to do directly with defending our country, except to make it worth defending*'



It may be that a country that is worth defending – in that non-financial sense of worth as Wilson intended – can cultivate more friends – both externally and internally – than one that may lose sight of the need for broader purpose and direction, a case maybe of knowing the price of everything and the value of nothing.

Fortunately for us all – I think – on that day, at the end of the 1960s, it was Wilson who won the argument.

I recall when Steve Jobs – the founder of Apple – passed away just over 6 years ago, how one of the Obituaries I read at the time offered a more contextualised and – in my mind at least – more balanced appraisal than many of the others written by various IT Boomsters and Doomsters.

President Obama described Jobs as the man who had put the Internet in our pockets. Others mentioned him in the same breath as possibly the greatest and most prolific of all American innovators, Thomas Edison.

The assessment I preferred however, proposed that:

'*Perhaps his problem was to be born at a time when, socially and technologically, mankind has pretty low ambitions*'

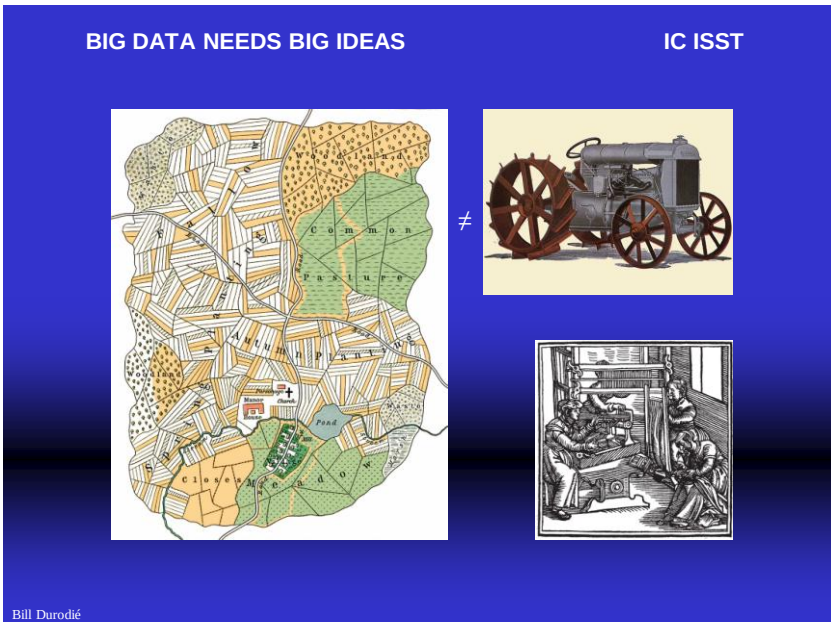
Jobs was a genius it is probably fair to say – but he was the genius who captured the zeitgeist of our introspective age. His technologies allow people to update their status to their countless and largely unknown virtual friends, as well as to reveal their most immediate and inane thoughts to the entire world – in the space which, one of my journalist friends describes as being where the idle rich meet the idle poor.

Jobs delivered a lot more of course – though notably he never allowed his own children access to an iPad.

Science, and technology, like individuals, are also products of their times – or at least circumscribed by these

For instance, social historians have noted how the medieval form of open-field strip farming not only kept society in check but technology too. Enclosure and private ownership – a process not really completed until the middle of the nineteenth century – while creating an army of landless vagabonds, also encouraged the pursuit of greater efficiencies in agriculture that in turn led to its mechanisation.

So, the construction of a ribbon loom in what is now Germany in the late sixteenth century was simply too far ahead of its times. The machine was destroyed and its inventor murdered by the authorities over two centuries before the Luddites, because its existence threatened the dominant mode of production and control.



In other words, social forms can enable or constrain technology – and even our ability to sense that something may be possible, as well as what it is we actually look for and how we interpret data.

Science and Technology also have to make use of the words and cultural reference points available to them in their efforts to reveal more profound relations that can then only be tested in practice and over time.

When I studied here at Imperial College in the Information Technology Stone Age there were still computer punch cards. I also took a course on The Philosophy of Science which, I guess, gradually reoriented my interests to other – more social and cultural forces and influences behind the ideas and developments we mostly take as having been inevitable.

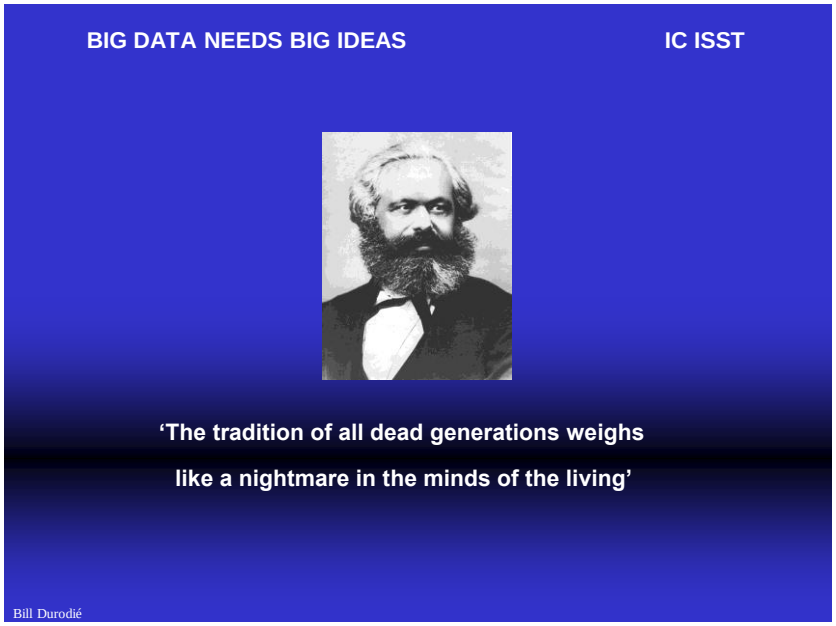
Like many others, I read Thomas Kuhn's work '*The Structure of Scientific Revolutions*' – a staple of this more socially embedded understanding of science, ever since its publication in 1962. Through it you begin to appreciate how reticent we all are to social change. Scientific paradigms are usually just chipped away at the margins – it is rare to witness a revolutionary transformation.

And, on this hundredth anniversary of the Russian Revolution, it may be worth citing that most infamous revolutionary of all – Leon Trotsky – who pointed out that:

'*The swift changes of mass views and moods in an epoch of revolution thus derive, not from the flexibility and mobility of man's mind, but just the opposite, from its deep conservatism*'.

It is because the system, the authorities, and even the people resist change that – when it comes – it can be so dramatic. Marx too, had somewhat more poetically proposed in 1852, that:

'*The tradition of all dead generations weighs like a nightmare in the minds of the living*'



By which he meant that we inevitably look to past reference points to attribute authority, meaning and purpose to ourselves – but we do so at our peril – at the risk of failing to take ourselves seriously and appreciating what is truly new in the present. And sometimes we look for and find patterns where there are none – which points to another of my themes here this evening – the need for strategic framing – or clarity in our objectives – to avoid getting blinded by operational preoccupations.

We could suggest, for instance, that those looking to Putin's Russia as evidence that the sleeping Soviet monster never really went away are failing to take new times, new trends and new conditions – many elements of which lie much closer to home – into consideration. Russia allegedly funding UKIP, or placing $100 000 worth of ads on Facebook seem unlikely explanations for the 17.4 million people who voted for Brexit or the 62 million who voted for Trump – especially in the light of Hilary Clinton's $1.2 billion campaign, which outspent Trumps by a factor of 2 to 1.

Hilary also had Eric Schmidt, the former CEO of Google on her team, who employed those supposed pillars of contemporary politics – Big Data and micro-targeting. It seems easier maybe to blame a technical trick by the Russians and look to prevent it than to accept a genuine political problem.

And similarly, those seeking to understand Al Qaeda and ISIS primarily through the prism of religion or as some foreign ideology may be making similar errors in failing to appreciate why it is that their supposed views appear to resonate so much with a considerable number of – primarily young – people here in the West.

Sir Isaac Newton – in his famous Letter to Robert Hooke of 1676 – understood the contextual dimension, when stating that:

'*If I have seen further, it is by standing on the shoulders of giants*'

In doing so he co-opted the Greek myth of the blinded hunter Orion carrying the youth Cedalion to guide him. And while some historians propose this to have been meant as an insult to Hooke, we can reasonably adduce that in those days the giants Newton pointed to, whether consciously or not – were not simply scientific ones but social ones.

The Moderns of his age, including Descartes and Hooke, had been guided by the Ancients of the distant past. And those who had, not so long ago, helped to depose a Pope and beheaded a King loomed large in Newton's historical and more immediate memory.

It was social transformations that had laid down the conditions for the rapid advances in science that Newton would then became a conduit for.

The motto of the Royal Society – Nullius in Verba – On the Word of No-one – itself adopted from the Roman poet Horace, the son of a freed slave, was the product of an age that came to take objective inquiry to be as important as the Pronouncements of Monarchs or the Word of God.

Newton, of course, as most people then were, was a believer too. So it is not surprising that he might appropriate the religious concept of a Universal presence or force that could act immediately – across space – for his gravitational theory.

Faraday, in 1845, doubting such instantaneous '*action at a distance*', was led to adopting the military metaphor of a FIELD, to indicate how each point within it was to be subject to a unique force that acted in a specified direction.

And – in a similar way, though in a very different arena – we can note how Darwin too, in developing his understanding of evolution was drawn, in his day, to the market metaphor of competition.

I give these examples not as idle historical curiosities but rather because it is of paramount importance for us today to understand that if we are to appreciate the cultural contours of what we do in relation to security science and technology then we must – first and foremost – have an accurate appreciation of the times in which we live, as well as of the dominant metaphors, mores, meanings and models we have to draw upon.

It may come as a surprise, for instance, to note how one of our dominant contemporary cultural perceptions – that we live in a particularly fragile environment, dominated by rapid change, clouded by a considerable degree of uncertainty regarding our ability to understand it – the things that '*we don't know, we don't know*' as Donald Rumsfeld once put it – is relatively recent in origin.

For instance, the insight that climate change can be induced through human action and that atmospheric CO2 levels impact global temperatures is over a century old, but it was not perceived of in the same way then as it is today. Its first exponent, the Nobel Prize winning Swedish scientist, Svante Arrhenius, even expected that this effect might be of benefit to humanity.

As late as the second half of the 1970s, John Mason, or Sir Basil John Mason, himself a former Professor of Cloud Physics here at Imperial, who was by then the Director-General of the Meteorological Office – a post he held until 1983 – asserted in a lecture to the Royal Society of Arts that:

'*There is no question that climate is variable and that variations have a greater social and economic impact than ever before*'

But, nevertheless, he had also concluded:

'*The atmosphere is a robust system with a built-in capability to counteract any perturbation*'

Notably, the sense that the climate system might be unstable emerged in a period of considerable political instability – the 1960s – and this then accelerated in the context of the global economic slowdown and associated energy crisis of the 1970s.

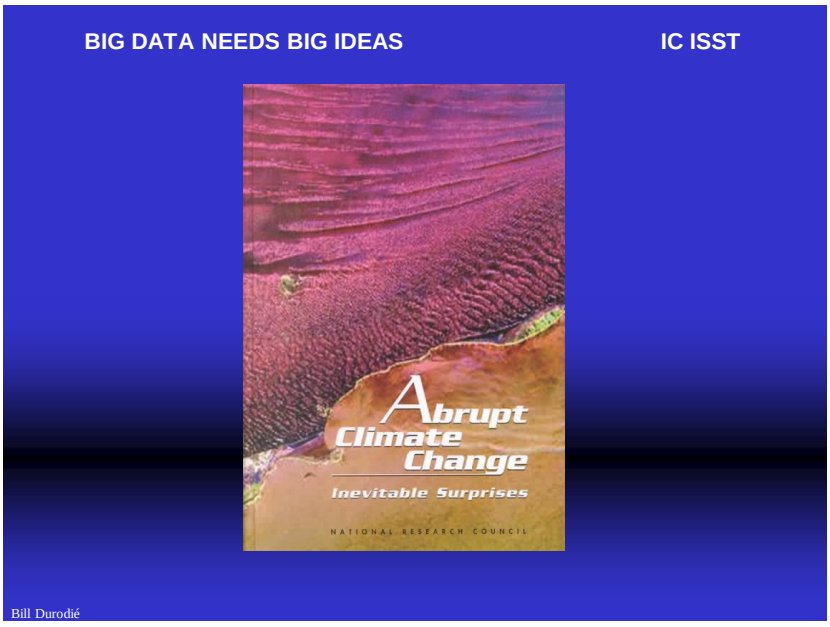
Undoubtedly, the Cold War race for, and impact of, ballistic missiles and nuclear weapons accentuated such perceptions – but, to give them their dues, there were benefits too. Rocket technology put Neil Armstrong on the Moon, and also gave us some of the first – and most enduring – images of the Earth, viewed from space, taken by the various Apollo teams. Whether you read these as images of beauty and wonder or of fragility and isolation – may say more about you and the times you live in than the images themselves.

Likewise, the bomb brought with it advancements in the Earth Sciences and Atmospheric Physics as – like it or not – physicists were now able for the first time to track the movement of radioactive particles through the atmosphere. But it also brought visions so influential that in the late 1980s one science writer discussing the possibility that the dinosaurs had been wiped out by a giant asteroid strike, noted how:

'*Like everyone else in this last part of the twentieth century, I carry within my consciousness the images of mushroom clouds and devastating explosions. I remember as a child watching television shows about how to build fallout shelters, and I recall how the sound of a plane at night always made me wonder if this was the one carrying the bomb. We have all come of age with the certainty that when the world ends, death will come from the skies. The idea that the dinosaurs perished in the holocaust that followed the biggest impact of them all feels right because it fits so neatly into the nightmares that project our own demise*'.

So theory can be adopted – in the first instance at least – by its resonance via imagery with the contemporary imagination.

In a similar way, Philip Alcabes, the Director of the Public Health program at Adelphi University in New York, notes how the flu outbreak of 1918 hardly registered in the Western imagination until the 1970s – when the notion, now widely believed, that flu epidemics occur in every decade also emerged. The notion that climate change may be abrupt is even more recent – dating from the early 2000s.



But – when paradigms shift so rapidly, from stability at one point to fragility at the next, then we should recognise that this may be driven more by changes in society than by changes in nature.

Last year, I completed part of a project for the Gerda Henkel Foundation in Germany. It was looking at the impact on people of being on the receiving end of constant warnings.

It is well evidenced how – with the passing of the old, Cold War, world order – a focus on insecurity and instability emerged, that reflected the breakdown of the old certainties. With this there came a proliferation of advice and warnings about all manner of risks from a profusion of agencies – both official and unofficial.

The media, of course, have a field day poking fun at some of the more dubious ones of these – bans on children running in the playground or door mats pronounced to be fire or tripping hazards by local authorities.

But some threat advice, as we know, is deadly serious too – advice on what to do in a terrorist or shooting incident, or on technical standards for cladding buildings. How do we ensure those are heard among the cacophony of more dubious or less significant advice?

What became evident, through my research, was the extent of public disengagement from much of this. Popular responses to the profusion of contemporary warnings include disinterest, fatigue and even defiance.

The key here is not the specific advice or evidence regarding any particular type of incident – which can usually appear entirely reasonable, but rather the sheer cumulative impact of being warned about almost anything all of the time.

From Public Health to Counter Terrorism, Climate Change to Child Safety, from what we eat to how much we drink – hardly a day goes by without some discussion or advice relating to these. Safety and precaution have become an integral part of our cultural landscape. And while individuals may choose to assess risks in order to keep themselves and their loved ones safe and well – something fundamental changes when those assessments are imposed upon them.

For a start warnings transfer responsibility – and so they can also be read as a form of blame avoidance or denial of accountability. What's more – the evidence, its interpretation, as well as the intention behind these are open to contestation. Simply labelling those who fail to comply as maladaptive or trying to modify their behaviour surreptitiously is not – in my opinion – the long-term answer.

Such technical responses reflect an unwillingness or inability by the authorities to consider the actions of others, or seek to influence these, through a moral or political framework.

Because the truth is – in our supposedly post-truth world – that people do not act on the basis of evidence alone. Rather, we need to take their values and beliefs into consideration and seek to engage with those.

Protectionist paternalism reflects a rather low view of people that may – ultimately – be self-defeating. It also points to the cultural disconnect between the actions of the few, however well-intentioned – and the values of the many charged with living by them.

Responding to the Foreign Office advice regarding travelling to Bali in the aftermath of the bombs there in 2002 – Sir Lawrence Freedman, now Emeritus Professor at King's College London, writing in the Journal 'Intelligence and National Security', noted how little could be achieved through general exhortation. Rather – authorities ought to share in a sense of strategic framing with the public.

We used to call that politics.

Strategy is a much misunderstood and misused term. It is often assumed to be what the people at the top do – as opposed to the operational matters the rest of us are meant to preoccupy ourselves with. But it is only by imparting a common understanding of the situation, and encouraging identification with shared objectives, that tactical plans and operational activity can flow. Information matters to all of us – but it is how this is interpreted according to our strategic framing that indicates what to consider first and how to act.

Strategy must certainly consider the actions and reactions of external agents and forces – but it should not be driven by these. It is about setting the agenda on our terms – not simply responding to elements beyond our control. Otherwise, we end up compromising our aims, confusing cause and effect, and become driven by self-fulfilling prophecies.

Preparing for emergencies and handling risks are undoubtedly strategic priorities – but they rely on more than just technical capabilities. Our values as a society remind us of where we are going – not just to narrow our gaze on the challenges we face now. Strategic framing enables us all to develop a sense of collective purpose – beyond the threats.

Unfortunately today, safety and security often come across as the end in themselves. We have shifted from articulating threats to eliciting or demanding actions and behaviours that are deemed desirable. And when choices are made for people rather than by them, it allows them to evade accountability because it was not their decision, it prevents them from becoming more knowledgeable and truly on-side, and it is demoralising – in the proper sense of the word – as it denies people the opportunity to become moral agents.

Instead – official pronouncements increasingly come across as messages from remote and alien authorities. Warnings become just background noise. And, contrary to the perceptions and prejudices of some – those who ignore and defy these are not the least educated or the most disconnected – but often the reverse.

So, when the then Director-General of the World Health Organization, Margaret Chan, declared in relation to 2009 H1N1 'pandemic' influenza that:

'*It really is all of humanity that is under threat*'

It was many healthcare professionals – that governments relied upon – who refused to be inoculated for it, because they experienced and understood events rather differently. Indeed – when writing her Independent Review of the UK response to the H1N1 outbreak, Dame Deirdre Hine noted how the Civil Contingencies Committee had been advised early on:

'*that modelling capability would be low due to the lack of available data'*

Nevertheless, it was: '*clear that modelling the pandemic was seen as a priority*'

Leading her to remark that:

'*Modelling … provides easily understandable figures, and because of its mathematical and academic nature may seem scientifically very robust*'

In other words, forecasts were produced to provide Ministers and Officials with things to do and say, as they needed '*to be seen*' to be taking action. Cultural framing became just as important as virology.

It was a case – among many others I could point to – of perceived operational need driving tactical intelligence in the absence of strategic framing – beyond saying that we were all at risk – even when the available evidence indicated otherwise

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The rise of risk management has encouraged a rigid fixation on worst-case scenarios rather than a balanced extrapolation from the most-likely ones. And risk management ought never to be simply about trying to reduce or eliminate risks and mitigate their consequences. Rather – risk management is about tackling specific risks, agreed on within a wider social framework that also invariably requires us to take risks.

The biggest mistakes therefore, come – from not taking risks, from not engaging people and, above-all, from not being clear as to our own strategic purpose in the first place.

Effective risk management requires us to know what we are for – not simply what we are against. Threats may drive some of our activities – but we ought also to have a mission of our own in advance.

The cultural prioritisation of risk mitigation was evident at the time of the Deepwater Horizon oil exploration platform explosion in the Gulf of Mexico in 2010. BP, who leased the platform, had a risk management manual lodged with the US author ities, which was rightly derided for its commitment to the protection of walruses, seals and sea-lions – of which there aren't any there.

But what the critics miss is that we live in an age of performative documents – from mission statements to codes of conduct, corporate social responsibility manuals to risk management plans – that all appear to be written with interchangeable terms and image and reputation mostly in mind.

So BP's document – as well as that of the other big companies drilling there – was written by a sub-contractor. It included 40 pages on how to manage the media in an emergency but just 9 on dealing with an actual oil spill. Because when risk becomes viewed as simply something to be avoided rather than as an opportunity too, then the management of risk increasingly becomes a ritual as Professor Michael Power of the London School of Economics has put it.

That the concept of Black Swans has become one of the most common metaphors of recent times speaks volumes as to the challenges we face. Black Swans – or, in essence, the need to expect the unexpected – makes sense – but only up to a point. Because, while sudden and unexpected shocks can and do undermine institutions and individuals – slow and steady drift that occurs right in front of us can be just as destabilising. In many instances what is experienced as shock is really drift that has gone ignored or unnoticed for a considerable period of time.

A couple of years ago I was travelling to London to give a talk on cybersecurity and privacy at BT Tower, while reflecting on how my journey – delayed by a failing forty-year-old diesel locomotive – had also been made unpleasant by the absence of any air-conditioning – itself a one hundred year old technology.

It is striking how the discussion about the so-called 'Internet of Things' – whereby all of our devices may one day become interconnected – has apparently been overrun by those more interested in the 'Internet' part of that phrase, rather than focusing much on the 'Things' element. But, as a report for IDG Connect published last year suggests – as the Internet becomes ever more sophisticated, it is increasingly connecting ageing things.

Maybe, rather than further securing this ageing infrastructure, it might be a more positive approach to argue for it to be replaced entirely – and to design security in from the outset. That takes time and there are conflicting priorities of course – but the goal is expansive rather than defensive.

After all, the only institutions and businesses that were genuinely affected by the WannaCry ransomware attack earlier this year were those still running largely outmoded software. That is not to deny either the intent or the growing scale of such incidents, although we should note too that continuous media coverage and statements from various authorities using metaphors from the worlds of disease and radiation, such as '*infection*' and '*meltdown*', may do more to encourage hackers

And maybe, those who ignored – or simply missed – the latest IT warnings from government were too busy handling the latest workplace reorganisation and dealing with staff shortages?

Many of the advocates of the 'Internet of Things' appear to have quite low horizons for it anyway – such as sensors that allow consumers and businesses to get more from their existing assets for less – including by optimising operations or through just-in-time maintenance. Not so much about doing more with new things than less with existing ones – like a twenty-first century version of '*make do and mend*'. Hardly what might inspire our detractors or the disillusioned into joining us on an ambitious venture into the unknown.

So maybe it is time for more IT professionals to focus on the tangible world of things that we actually live with? For years, innovation has become reduced to innovation in IT – often with a view to reducing capital investment – which itself is running at an all-time low.

The primary reason for anyone facing a power outage, for instance, is not terrorism, but to do with infrastructure. Again, that is not to say that planners ought not to concern themselves with the potential for deliberate attacks – either physical or cyber. But, in the meantime, problems, when they occur, are mainstream rather than extreme. They usually have to do with ageing power lines, sub-stations that are prone to flooding, and a lack of primary power generation.

And the challenges to those are more often cultural than technical, such as opposition to the installation of new cables and pylons, and delays over the introduction of new nuclear power plants.

Similarly, beyond the exotic concerns regarding terrorists wanting to poison our food or water supplies, all of the research completed to date in relation to food defence incidents from the 1940s to the present day suggests that the biggest threat – aside from industrial accidents – come from your loved-ones – or not so loved-ones – making use of those tried-and-tested tools of the trade – primarily rat poison and cyanide.

Angry – or disillusioned – insiders, we know, are currently one of the main threats to our ageing things.

But, if we examine Tim Berners-Lee's original vision, which led to the World Wide Web – produced for his then boss at CERN – the European Organization for Nuclear Research in 1989 – it was not so much about connecting things, as people.

His challenge was the '*high turnover of people*' at CERN, just as much as the sheer volume of constantly changing information they created and the concomitant loss of institutional memory when they left.

In our age of so-called '*Smart Regions*', '*Smart Cities*', '*Smart Grids*' and '*Smart Networks*', it would seem that the only thing left out from being described as smart are the people.

This is a process that has been described by some as '*Algorithmic Fatalism*' – and that reflects our diminished view of ourselves as purposeful and transformative agents.

As I have noted elsewhere:

'*People who believe in a cause or project are far more effective agents of it than those who are coerced or corralled. But to benefit from this power of conviction, there needs to be a concomitant intellectual or ideological engagement that is often absent today*.'

Whatever else we might believe about so-called '*intelligent systems*' and Big Data, it is only people who can adapt with a vision and purpose to new times, rather than simply adjust as machines and processes do.

Just last month the journal Nature announced the advent of a new IT program that had mastered the game of Go to the point of defeating a world champion, as well as developing entirely new strategies of its own within just a few days, despite no guidance beyond the rules.

It led to the usual concerns being expressed about algorithms developing faster than society and calls for ethical guidance. What was left out was any insight into how the program had celebrated its achievement.

As a physicist turned political scientist, I should make clear that I'm not at all downbeat about the benefits and potential of IT and Big Data. But maybe Big Data's real problem – for now at least – is that it is simply not Big enough, often enough.

When Arthur C. Clarke wrote his '*Profiles of the Future*', in the same year as Kuhn's '*Structure of Scientific Revolutions*' – he noted two failures that consistently occur when we look into the future: failure of nerve and failure of imagination.

There's a world of difference, for instance, between using big data to detect Gravitational Waves, thereby exposing what Newton could not, or using it to run the Large Hadron Collider, our modern-day equivalent of Fermilab, to find out what things are really made of, as opposed to trying to save a bit of money by turning the thermostat down remotely, knowing when to replace or relocate stock or inventory and even, trying to predict who might be becoming radicalised from changes in their use of words on social media.

Even the simplest of human actions involves levels of complexity, nuance and interpretation that continue to defy the logic of coding and self-taught computer programs.

Neuroscience may tell us which part of the brain lights up when we see the colour blue – but it says nothing about how we associate that with the smells and sounds of having been by the sea many years ago and what that meant to us. Or that blue stands for freedom in the French tricolor – and what that word – freedom – really means, how it comes about, and why most value it more than efficiency.

Because, unlike programs, we continuously seek to transcend or transgress the limits we find. People have emergent properties that transform the rules of the game, as well as the game itself.

Information Technology may sometimes tell us what – but it rarely tells us why. It is brilliant at revealing what is – but hopeless at imagining what ought to be. And those latter elements are the very stuff of what makes us human – what might even radicalise someone nowadays – though, just as interestingly, mostly not.

If you want to understand a human being, it might be more useful to read some great literature than to examine what they post on Facebook – better still, talk to them, because even though they will keep things from you, that will still tell you more about them than you can assume from their purchasing patterns.

No movement for social progress – from the French Revolution to the Civil Rights Movement – ever came from simply accepting the available evidence as given. Rather – they fought for a vision of society that only existed in an imagined future. But by obsessing about reducing risk we inevitably obscure our opportunities too. By fixating on the problems that confront us in the present we fail to shape what could be in the future and to inspire others – we simply manage rather than lead.

Maybe by becoming more ambitious for big data – as well as the things it connects and, above-all, for ourselves – we might discover new things that allow us to handle old problems – as people did before the contemporary – self-limiting and somewhat dystopian post-Cold War – mindset set in.

As I have noted previously, our outlook can have a determining effect on how we view the available evidence, as well as what we consider to be evidence in the first place, including how we go about looking for and measuring it.

Some may be clear that we live in an age of renewed and unparalleled security challenges – from dealing with ISIS, through a belligerent North Korea, and on to an increasingly assertive Russia and China.

I note that even just a few years ago though – Sir Richard Dearlove, the former Chief of MI6 – thought differently, indicating in a speech delivered at the Royal United Services Institute that there seemed, to him at least, to have been a loss of perspective and proportionality in our dealing with threats when compared to when we were facing the full might of the Soviet Union and its satellite states right across the globe.

Be that as it may, those who promote the bleaker view should be alert to the fact that the science and technologies they develop in accordance are likely to be more blinkered and self-limiting. One aspect of that may be too great a fixation on primarily external challenges.

If we really want to '*build resilience*' into society then maybe that comes not just from gathering more intelligence, conducting more surveillance, or spending more on detection, protection, barriers, vaccines and equipment. Rather, it comes first from having greater clarity as to who we are, what we stand for and where we are going.

Only with such a strategic outlook in mind can we than ask more tactical questions regarding the challenges we currently face and go on to address operational matters, such as how to deal with or interdict these.

Whether people really become radicalised in a disturbingly short period of time for instance, or – more likely – they begin to engage with a dystopian discourse that speaks to their long-term experience and sense of existing frustrations, distorted through dominant and largely negative cultural presumptions, is an important distinction.

It points to how the interception of communications comes far too late in the process, as well as how some authorities have – in effect – given up on trying to understand why people believe the things that they do, and trying to shape these, and now aim simply to stop them from acting instead.

Writing in the Washington Post in 2015, Avinash Tharoor, a former student at the University of Westminster – where Mohammed Emwazi, who became known as '*Jihadi John*', had also studied – told of an incident in a lecture on International Relations there when a young woman had announced in class, that:

'*As a Muslim, I don't believe in democracy*'

One element that surprised Tharoor, was an unwillingness to engage with the student. Maybe the instructor could have pointed to some gains for women from democracy – or to different types of democracy that the class might wish to evaluate the pros and cons of – such as direct democracy, representative democracy, deliberative democracy, and so on.

Instead – for fear of causing offence maybe (itself a relatively recent – if well-meaning – concern) – or worse, not knowing how to argue for democracy at all – the comment went unchallenged.

An uncritical and unquestioning culture then – or one where people are increasingly reluctant to express their views or challenge the beliefs of others – may be one of the social drivers we ought to address politically, rather than presuming all solutions to lie within the sphere of prevention.

In 1959, the chemist and novelist, Charles Percy Snow, or CP Snow, gave what came to be known as the Two Cultures lecture in Cambridge, which contrasted the insight and attitude of those working in the Sciences and Humanities to each other.

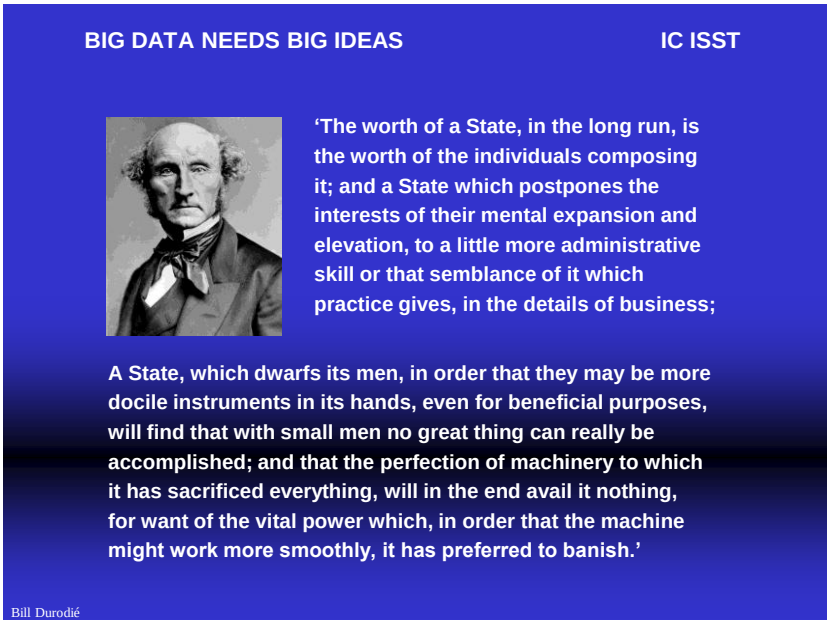
I'm not sure today – almost 60 years on – whether those working in the Humanities understand any more about the Second Law of Thermodynamics than they did back then. I suspect, sadly, in our highly instrumentalist age, that those in the Sciences may have even less time to read not just Literature, but Politics and Sociology too, as well as History and Moral Philosophy. I hope I'm wrong.

Either way, it remains the case that each side could still do with finding out a little more about the other and, hopefully, start to work together more. There is a good degree of suspicion to be overcome, as well as a dystopian mindset to be transcended for both to truly flourish. But, above all, we all need to start taking people more seriously – not just in a Victorian patrician way of seeking to protect and look after them – but as serious partners and active moral agents of their own destinies – as well as ours.

Whatever your views on Brexit or the election of Donald Trump are, for instance, an even greater challenge than the Two Cultures is to begin to take seriously and engage with the 50% of our societies that experience life and think differently to ourselves.

As John Stuart Mill indicated, in the conclusion to On Liberty:

'*The worth of a State, in the long run, is the worth of the individuals composing it; and a State which postpones the interests of their mental expansion and elevation, to a little more of administrative skill or that semblance of it which practice gives, in the details of business; a State, which dwarfs its men, in order that they may be more docile instruments in its hands even for beneficial purposes, will find that with small men no great thing can really be accomplished; and that the perfection of machinery to which it has sacrificed everything, will in the end avail it nothing, for want of the vital power which, in order that the machine might work more smoothly, it has preferred to banish*.'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Bill Durodié

Thank you.


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THANK YOU
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